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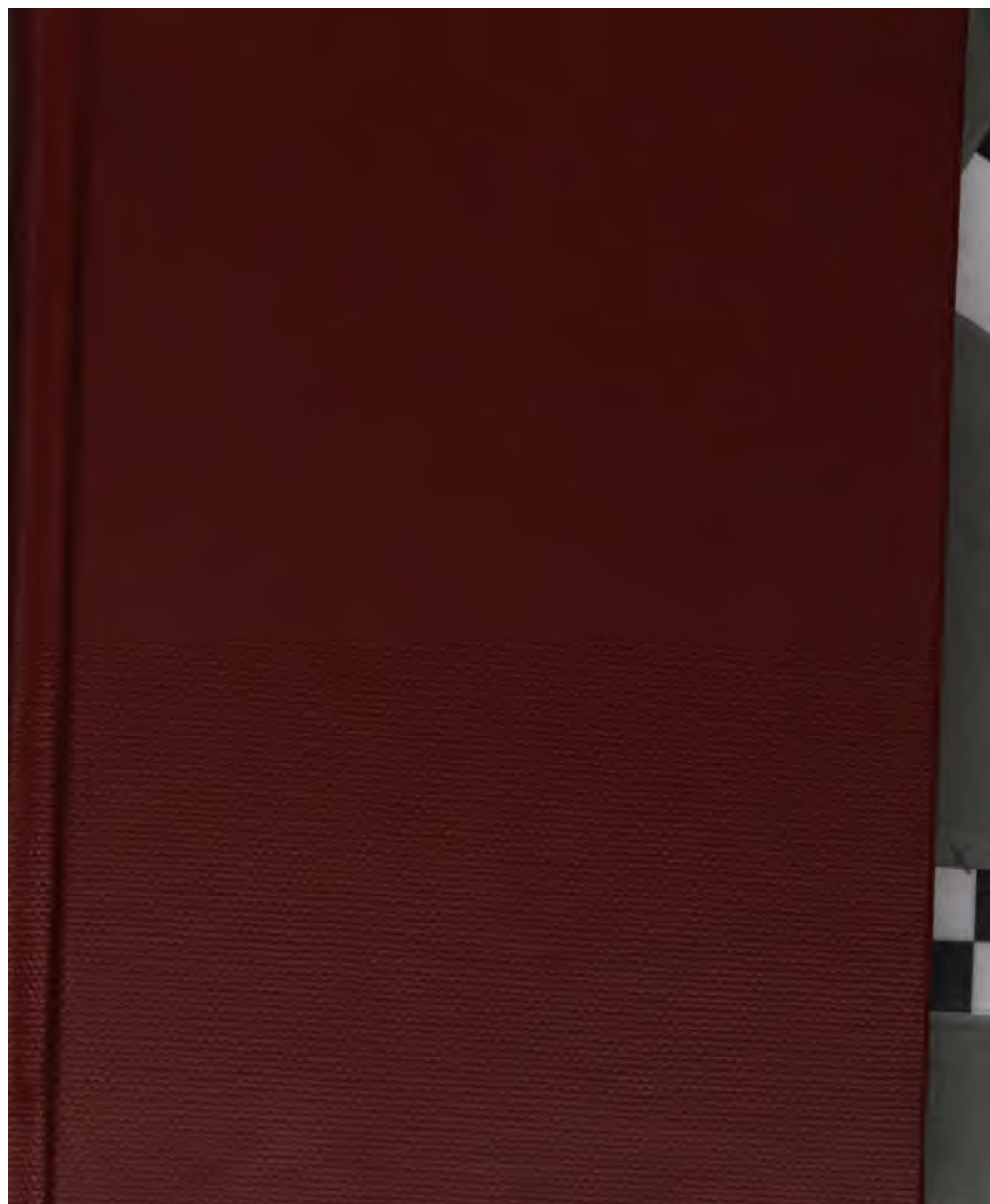
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OFFICIAL GUIDE
TO
HARVARD UNIVERSITY

EDITED BY
THE HARVARD MEMORIAL SOCIETY



CAMBRIDGE
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PREFATORY NOTE

THE first edition of this Guide was prepared and published for the meeting of the American Association for the Advancement of Science in Cambridge, in August, 1898. It was edited by Mr. Byron Satterlee Hurlbut, A.M. (H. U. '87), then Recording Secretary of the Faculty of Arts and Sciences.

The next year a new edition, enlarged and with additional illustrations, was prepared by Mr. William Garrott Brown, A.M. (H. U. '91), Deputy Keeper of the University Archives, and was issued, with the permission of the President and Fellows of Harvard College, by the Harvard Memorial Society. The object of this Society, which was founded in 1895, is "to foster among students interest in the historical associations of Harvard and to perpetuate the traditions of her past," and to it has been appropriately committed the revision of this Guide and the preparation of successive editions.

A new edition was issued in 1903, prepared by Mr. Brown with the assistance of Mr. Albert V. de Roode, of the Class of 1904, and Mr. Charles Greely Loring, of the Class of 1903.

The present edition has been revised by Mr. Nathaniel C. Nash, Jr., and by Mr. William Leavitt Stoddard, both of the Class of 1907, Secretary and Treasurer respectively of the Memorial Society.

The Memorial Society is under obligations to many persons for assistance rendered in the preparation of the Guide, — especially to the officers of the University who have written or revised the accounts of their several departments.

WILLIAM COOLIDGE LANE,
President of the Harvard Memorial Society.

CAMBRIDGE,
August, 1907.

INTRODUCTORY

THE UNIVERSITY

HARVARD UNIVERSITY is an institution of learning established under the laws of Massachusetts. It is made up of seventeen departments beside a number of museums, laboratories, and other establishments not usually reckoned as separate departments. It occupies a total area of more than 500 acres. Most of the buildings are in Cambridge and Boston. The quick capital of the University July 31, 1906, was \$19,977,911.71. The value of the lands and buildings devoted to education and the advancement of learning was estimated at about twelve million dollars. The enrolment of students in all departments in 1906-07, including the Summer School of 1906, was 5,110. The officers of instruction and administration numbered 641.

FOUNDATION

The title of University dates only from the year 1780, when the Massachusetts Constitution of that year referred to "the University at Cambridge." Until 1783, when medical lectures were first given, the institution was properly called Harvard College.

Harvard College was founded in 1636. Oct. 2, 1636 (Old Style), the General Court, as the legislature of

Massachusetts Bay was called, passed the following vote :

“The Court agree to give four Hundred Pounds towards a *School* or *College*, whereof two Hundred Pounds shall be paid the next year, and Two Hundred Pounds when the work is finished, and the next Court to appoint where and what building.”

The governor who approved this vote was Henry Vane, afterwards, as Sir Henry Vane, much distinguished in English history. The next year the Court voted that the College should be at Newtowne, and committed the work to twelve eminent men of the colony, among them John Winthrop, who preceded and succeeded Vane as governor, and John Cotton. The same year, the name of the town was changed to Cambridge, in honor of the English university where a number of the Colonists had been educated. In 1638, John Harvard, a nonconformist clergyman who had been in the colony about a year, dying at Charlestown, left his library of 260 volumes, and half his fortune, to the infant college. In his honor it was called Harvard College. In the year 1640, the first President, Henry Dunster, entered upon his duties. Two years later, the first class, numbering nine, was graduated.

CONSTITUTION

The institution was thus founded, placed, and named. Its constitution has been changed several times, but two acts of the colonial legislature, each establishing a governing board, have determined the general character of its government throughout its subsequent history.

The first of these was passed in 1642, and established the Board of Overseers; the second in 1650, and estab-

lished a board officially styled the President and Fellows of Harvard College, but always more commonly known as "The Corporation." These two boards govern the entire University.

The Board of Overseers was at first made up of the Governor, the Deputy Governor, and the Magistrates of the Colony, "together with the teaching elders of the six next adjoining towns, — viz., Cambridge, Watertown, Charlestown, Boston, Roxbury, and Dorchester," and the President of the College. It necessarily included all the most prominent and powerful men of the Puritan commonwealth, and the College government was therefore very like the government of Massachusetts Bay. But this body was soon found to be too large for the immediate direction of the school, and in 1650 the General Court drew up an instrument of great interest which now hangs in the Librarian's room in Gore Hall. This document is the Charter of Harvard College. It is "the veritable source of collegiate authority" to-day, and the corporation it established is the oldest in the country.

The charter committed the property and the government of the College to seven persons, a President, a Treasurer, and five Fellows, who were empowered to fill vacancies in their number. They were to elect the teachers and other officers, and to make all laws and orders, subject only to confirmation by the Overseers. The records of the President and Fellows, preserved in the archives of the University, are fairly continuous and complete. They reveal with what patience and wisdom, for two centuries and a half, the property of the institution has been guarded, its activities expanded, and its high aims adhered to. The responsibility of the Corporation

to the Overseers was somewhat lessened in 1657 by an appendix to the charter, to the effect that the acts of the smaller body should always have "immediate force," although they should still be "alterable" by the Overseers.

In the year 1684, the colonial charter of Massachusetts Bay was revoked, and it was generally held at the time that the College charter was vacated by this act of the crown. In consequence, the government of the College was for years unsettled. In 1691, a province charter was given to Massachusetts Bay, and the next year the General Court passed a new College charter, but it was disallowed by the home government because it did not give the King the right to appoint visitors. No less than three other charters passed the General Court, the last in 1700, but none of them ever was confirmed in England. Finally, in 1707, the Court simply voted that the original charter of 1650 was still in force, and on that theory the College is still governed.

While the constitution of the Corporation has remained unchanged from the beginning, that of the Board of Overseers has been greatly altered by successive statutes. In early times there was serious difficulty in getting the members together. This led first to the establishment of the Corporation, and then to a provision of the act of 1657 to the effect that, if notice of a meeting should be given to members dwelling in the "six next adjoining towns," votes passed at the meeting should be valid, whether those dwelling in remoter towns received notices or not. The constitution of the State of Massachusetts, adopted in 1780, changed the Overseers by substituting the Governor, Lieutenant Governor, Council, and Senate of the

State for the Governor, Deputy Governor, and Council of the Colony; and defined the "teaching elders" of the "six towns" as "ministers of the Congregational Churches" in those towns.

The next important change came in the year 1810. The Council and Senate were eliminated from the Board, the official membership being reduced to the Governor, the Lieutenant Governor, and the presiding officers of the two houses of the Legislature. The body of the membership was to consist of fifteen Congregational clergymen and fifteen laymen, to be elected by the Board itself. This law was repealed two years later, but reënacted in 1814. Twenty years later, the Court voted that the clerical members might be chosen from any denomination, the change to take effect whenever the Corporation and Overseers should agree to accept it. This they did in 1843, and the institution was thus freed from the control of a particular denomination.

An act of 1851 struck out entirely the requirement that a portion of the membership should be chosen from the clergy; made the Governor, the Lieutenant Governor, the presiding officers of the two houses, the Secretary of the Board of Education, and the President and the Treasurer of the College, members *ex officio*; and entrusted the election of the remaining members to the two houses in joint convention assembled, a certain number to be chosen every year and to go out of office at the end of a term of years.

In 1865, the Board was divorced from the State government by an act which, with some amendments, is still in force. Bachelors of Arts of five years' standing, Masters of Arts, and the holders of honorary degrees were

empowered to elect every Commencement Day five members of the Board, who should hold office for six years, the President and the Treasurer for the time being remaining members *ex officio*. Candidates for membership need not even reside in Massachusetts. The elections are held in Massachusetts Hall, and are conducted according to the "Australian" system. In 1902, the General Court empowered the Corporation and Board of Overseers, by concurrent vote, to extend the suffrage for Overseers to the holders of other degrees than that of A.B. Under this authority the suffrage was extended to Bachelors of Science, Masters of Science, Doctors of Philosophy, Doctors of Science, and the holders of the several degrees in applied science—all to be of five years' standing. In other words, all degrees conferred upon the recommendation of the Faculty of Arts and Sciences eventually entitle their holders to vote for Overseers.

Thus, after many changes, the government of the University is no longer connected with either church or state, except that the General Court of Massachusetts necessarily retains the power to alter it,—a power, however, which the Court does not seek to exercise without the consent of the University itself. It is therefore true that neither state nor church exercises any control over Harvard, though it was founded by the state and long dominated by the church.

THE DEPARTMENTS

Turning now to the immediate government of the University, we may consider its departments as divided into those in which students are enrolled for instruction or research and degrees are conferred, and those scientific collections and laboratories, including the University Library, which are accessory to instruction and research in the several branches of learning. The general plan on which the former departments are organized may be described as follows : —

The University aims to furnish, as a sound preparation for all the vocations of educated men, an opportunity for liberal training in arts and sciences. This opportunity is given in Harvard College, to which students are admitted by examinations based on courses of study such as are offered in good secondary schools. On this foundation of liberal training are based the Graduate or Professional Schools of the University (with certain exceptions noted below) ; but for the purpose of admission to its Professional Schools Harvard University regards graduation from any college or scientific school of good standing as sufficient evidence of preparation. Thus the University has established an important relationship with colleges in all parts of the country, and has given a certain support to those colleges, as well as to Harvard College, by setting up the bachelor's degree as the means of access to professional degrees at Harvard.

The Graduate or Professional Schools comprise : the Graduate School of Arts and Sciences, the Graduate School of Applied Science, the Divinity School, the Law

School, the Medical School, the Dental School, and the Bussey Institution (a School of Agriculture). The two departments last named are exceptions to the general rule, these being directly accessible to persons having the training of secondary schools. The Lawrence Scientific School is an undergraduate department which gives special training in a number of scientific fields; but it is expected that students who aim at a professional degree in applied science will more and more tend to seek a liberal undergraduate training in Harvard College, including in their work studies which will prepare them for the professional training of the Graduate School of Applied Science.

Special Students. In every one of the above mentioned departments opportunities for special study are open to qualified persons who are not candidates for a degree.

FACULTY OF ARTS AND SCIENCES

The administration of Harvard College, the Lawrence Scientific School, the Graduate School of Arts and Sciences, and the Graduate School of Applied Science is committed to the Faculty of Arts and Sciences, whose meetings are held in University Hall, the central building in the College Yard. This Faculty numbered (in 1906-07) 152, including only those teachers whose appointments were without limit of time or for more than one year. The schools under its control, including the Summer School and the Saturday and Afternoon Courses for Teachers, offer courses of instruction attended by nearly four thousand persons, and use in common most of the lecture halls, laboratories, museums, libraries, and other collections in and about the College Yard in Cam-

bridge. The College, the largest of all the departments, has over two thousand students (2247 in 1906-07).

Degrees are conferred on recommendation of the Faculty. The courses offered in the College are elective, with certain limitations, and lead to the degree of Bachelor of Arts or Bachelor of Science. The ordinary length of residence varies from three to four years according to the previous attainments of the student, or the number of courses taken each year. In the Lawrence Scientific School four-year prescribed programmes are offered, leading to the degree of Bachelor of Science in the several special fields. To properly qualified students in the Graduate School of Arts and Sciences, who fulfil the requirements of work and residence, the degrees of Master of Arts, Master of Science, Doctor of Philosophy, and Doctor of Science are offered; and in the Graduate School of Applied Science the professional degrees appropriate to the various fields of study (civil, mechanical, and electrical engineering, mining, metallurgy, architecture, landscape architecture, forestry, applied chemistry, applied geology, applied zoölogy).

FACULTIES OF DIVINITY, LAW, MEDICINE, AND AGRICULTURE

The Divinity School, the Law School, the Medical School, the Dental School, and the Bussey Institution are administered by faculties separate from the Faculty of Arts and Sciences. Both the Medical and Dental Schools are under the Faculty of Medicine.

The Divinity School has its buildings on Divinity Avenue, in Cambridge. It offers about fifty courses of instruction, covering the subjects studied in denomina-

tional schools ; but it is connected with no denomination, and its spirit of free and earnest inquiry after truth makes it an integral part of the University. The students have many privileges of instruction in other departments of the University. (See p. 119.)

The Law School occupies Austin Hall, on Holmes field, Cambridge, near the site of the house formerly owned by the Holmes family, to whose estate the land belonged. A new building, — Langdell Hall, — back of Austin Hall, was erected in 1906-07. The term of residence necessary to obtain the degree of Bachelor of Laws is three years, and none but graduates of colleges of good standing are regularly admitted as candidates for the degree. About forty separate courses of instruction are offered. The enrolment of students in 1906-07 was 697. (See p. 121.)

The Medical School occupies a magnificent group of five white marble buildings at the corner of Huntington and Longwood Avenues, in Boston, which were dedicated in 1906. Its equipment for instruction and research in medicine and the widening field of biological science is comprehensive ; and its efficiency will shortly be enhanced by the erection of several hospitals on adjacent land. Intimate relations are already sustained with the hospitals of Boston. The term of residence for the degree of Doctor of Medicine is four years, the courses of the fourth year being elective. The enrolment of students in 1906-07 was 320, exclusive of 192 summer students. (See p. 130.)

The Dental School occupies a building on North Grove Street, Boston. The term of residence leading to the degree of Doctor of Dental Medicine is three years. The

courses of instruction, some of which are given in the Medical School, cover about twenty principal subjects. The enrolment in 1906-07 was 65. (See p. 136.)

The Bussey Institution, a school of agriculture and horticulture, is situated in Jamaica Plain, a suburb of Boston. A three years' course of study and the passing of required examinations lead to the degree of Bachelor of Agricultural Science. Forty-three students were enrolled in this school in 1906-07. Systematic instruction is given in agriculture, in useful and ornamental gardening, in surveying and construction in their relations to agriculture, and in chemistry, physics, and natural history as applied to this art. (See p. 138.)

SUMMER COURSES OF INSTRUCTION

Summer courses of instruction are offered by the Faculty of Arts and Sciences, the Faculty of Divinity, and the Faculty of Medicine (including the Dental School). The general aim of these courses is to keep the facilities and resources of the University partially in service during the long vacation, and to meet the general demand for opportunities of summer work. Though the session is not coördinated with the other sessions of the University, work done in the summer courses may sometimes be counted toward a degree.

OTHER DEPARTMENTS

The remaining departments of the University do not offer regular courses of instruction leading to degrees; but they are all intimately associated with the work of teaching and are of incalculable value to the various schools which have been enumerated.

The University Library is justly described as the very centre of the working life of the whole University. Its principal strength is in Gore Hall, the College Library, but twenty-eight special reference libraries are administered in connection with the College Library, and ten other larger departmental libraries are under the general oversight of the Library Council. (See p. 50.)

The University Museum, with which *The Peabody Museum of American Archaeology and Ethnology* and *The Museum of Comparative Zoölogy* are connected, is of daily use to students in various scientific courses, many of which could not be given adequately without its collections (p. 101). *The Botanic Garden* and *Gray Herbarium* are also in Cambridge (p. 122). *The Astronomical Observatory* has its principal station in Cambridge, where the bulk of its work is done; but it maintains another station at Arequipa, Peru, and the Blue Hill Meteorological Observatory coöperates with it (p. 126). *The Arnold Arboretum*, with its Herbarium and Museum, is in Jamaica Plain (p. 139).

MINOR ESTABLISHMENTS

The museums, laboratories, etc., not reckoned as separate departments, though some of them have separate buildings, need not be enumerated here. They are all described in the pages which follow.

THE COLLEGE YARD

AN HISTORICAL SKETCH

There is, perhaps, nothing better to say to a stranger entering the Yard of Harvard College than what Lowell said in his oration on the two hundred and fiftieth anniversary of the founding of the College. Having first praised the architectural beauties of Oxford and Cambridge, and acknowledged the fitness of their quadrangles and cloisters to stand before our eyes for all the past glories of English scholarship and all the venerable associations of those aged universities, he frankly confessed of the New England college that its past is "well-nigh desolate of æsthetic stimulus. We have none," he said, "or next to none, of these coigns of vantage for the tendrils of memory or affection. Not one of our older buildings is venerable, or will ever become so. Time refuses to console them. They look as if they meant business, and nothing more." The interest of these buildings is very great; but it is entirely historical and practical, not artistic. For beauty, one must look to the grass and to the noble elms; for inspiration, to the story of the hard beginnings of the College and its fidelity to high ideals, and to the lives and characters of the men who have studied and taught here, and from here have passed into the service of their country, and of just causes, and of mankind.

Nevertheless, it seems quite clear that the founders of Harvard, poor men though they were, and in a wilderness,

had in mind the English universities, and Cambridge especially, when they set about their task. Many of them were Cambridge men; and the first building, rude and ill-built as it was, had much that was suggestive of a "Hall" in an English university. We do not certainly know where it stood, though it is thought to have stood near the site of Grays Hall, but the early records show that it was a home as well as a place of study. There were in it chambers, "studies," a kitchen, and a buttery; and on top there was a "turret." We even know the cost of the various items purchased in fitting up the several "studies." Here, for example, is the account, taken from the first College Book, for the study occupied by George Downing of the Class of 1642. In the entry he is called "Sir" Downing because he was a graduate when the account was made; later, he went into the English diplomatic service, was knighted, and won for himself an eminence not very admirable, for he was reputed a miser and a turn-coat.

SIR DOWNINGS STUDY

		lb	s	d
Impr.	For boards 272 foote	0	16	8 ob. q.]
It.	Ten dayes & $\frac{1}{4}$ worke at 22 ^d a day	0	19	3
It.	For y ^e Smithe's worke	0	6	11
It.	For glasse	0	2	1
It.	For nayles, locke & key	0	3	-
		lb		
Suma totalis		2	7	6 ob. q.]

There is no picture of this first "college," but the high ideal of the builders and their scanty means resulted in a structure of which one writer tells us that it was "thought by some to be too gorgeous for a wilderness, and yet too mean in others' apprehension for a college." It was soon



A Prospect of the Colleges in Cambridge in New England.

From the oldest known print of Harvard College, engraved in 1736, and representing the college as it appeared when ninety years old. The building on the right, Massachusetts Hall, is still in use.

in need of repairs, and proved inadequate to the wants even of the scanty College population of those days. Within ten years of its completion, the "governors" of the institution had begun to "purchase the neighbors' houses" to accommodate students. One of the houses bought for this purpose was Mr. Edward Goffe's, and it came to be known as Goffe's College. The term "college" was at first applied to each of the separate buildings, and this usage survived for many years. In 1653-54, the Commissioners of the United Colonies persuaded the Society for the Propagation of the Gospel in New England to erect a small brick building for Indian youth, and this was known as the Indian College. But the experiment was not successful, and only one Indian ever received a Harvard degree. The Indian College was poorly built, and was a ruin before the end of the century. So was the "Old College," which was succeeded in 1672 by the first Harvard Hall, or Harvard "College." This seems to have been well built, for it was still in good condition when burned nearly a century later.

We have a good picture of this first Harvard Hall, and we know that it stood in the Yard, just to the left of the main entrance. It stood alone until the year 1700, when a new "college," called Stoughton, in honor of Lieutenant Governor William Stoughton, who gave it, was built in front of the main entrance, making a right angle with the eastern end of Harvard. A few years later, under the guidance of President John Leverett, the institution entered on a new and more prosperous period in its career, and in the year 1718 the General Court of Massachusetts made a grant for still another hall, the oldest of all the buildings now standing.

This is Massachusetts Hall, on the right as one enters the Yard through the Johnston Gate, and facing the site of the first Harvard. It made, with Harvard and Stoughton, a very small quadrangle, and of these three buildings we have an excellent engraving, made by William Burgis in 1720. Behind Stoughton, as it appears in that engraving, there was an old field, crossed by a brook; probably no one dreamed of a time when it would be covered with other College buildings. In 1720, when Massachusetts was finished, the graduating class numbered thirty-seven, and it was many years before any great increase came. Cambridge was but a village, lying chiefly between the College and the river. Boston itself was but a small town, though thriving, and no bridge connected the two places. One source of the income of the College was the tolls of the Charlestown Ferry, which Cambridge people crossed when they went to Boston, unless they went by "Roxbury Neck." The teaching in the College was chiefly the work of tutors. The first professorship, the Hollis Professorship of Divinity, was established the year after Massachusetts was built.

It is pleasant to know that the outside of Massachusetts has been changed hardly at all. Every class since 1720 has seen the same square walls of red brick, the small windows, the narrow doorways. But the inside has been much altered. At first, it was given over entirely to small chambers and still smaller "studies." After the fight at Lexington, in the Revolutionary War, the chambers were for a time occupied by American troops, the students being sent away to Concord. Early in the present century, in President Kirkland's time, a part of the lower floor was devoted to lectures and society meetings, and

in 1870 the remaining chambers and studies made way for lecture halls and examination rooms. Several of the larger lecture courses are now given here. While the building was used as a dormitory, many of the most eminent sons of Harvard lived in it.

During the eighteenth century, no progress whatever was made towards the development of the quadrangle into which one now looks on entering the Johnston Gate. Six years after the completion of Massachusetts, the Province legislature appropriated money to build the President a house; but the site chosen seems to show that it was not meant to bear any special relation to the buildings already standing. Wadsworth House, as it is now called, in honor of the first President who occupied it, was the home of every one of the Presidents who succeeded him until President Edward Everett went out of office. It shares with the Craigie House the distinction of having sheltered Washington, but it was found inadequate for a headquarters. In recent years, it has been put to many different uses. It has been altered from time to time, but except for the paint the outside is still suggestive of the sober days and sober lives with which we naturally associate it in our thought.

When the College was a century old, and had trained hundreds of clergymen, it was still without a place of worship of its own, although it had an interest in the parish meeting house which stood near the site of Dane Hall. The wife and daughters of Samuel Holden, M.P., who himself had been a liberal benefactor of Harvard, gave £400 to build a chapel, and a site immediately in the rear of the first Harvard Hall was chosen. Holden Chapel was the first of the buildings to take its name

from an English benefactor, and it is rather curious that the others so named are very close to it. About twenty years later, there being need of a new dormitory, the Legislature voted the necessary sums, a site to the northeast of Harvard was chosen, and the building was named for Thomas Hollis, an English merchant, who died in 1731, and whose benefactions were the most remarkable feature in the cherishing of the College up to that time. He was a Baptist, yet he gave sums which in those days were considered vast to help a school which had dismissed its first President because he objected to the baptism of infants. The Hollis Professorship of Divinity, established more than a hundred and fifty years ago, was never until the present time filled by a man in sympathy with the creed of its founder.

Hollis Hall was scarcely built when the worst disaster the College ever met again reduced the number of buildings to five: Harvard Hall was burned in 1764, and it was only with the greatest difficulty that Hollis, Stoughton, and Massachusetts were saved from the flames. The library and the philosophical apparatus were lost, but the Province, feeling an especial responsibility because the Legislature was holding its sessions in the hall at the time, promptly voted the money to rebuild, and a liberal stream of private benefactions poured into the College treasury, so that there were soon a new library and new apparatus. The new Harvard, like the old, was devoted to many uses. It had a kitchen and buttery in the basement, a dining room and a chapel on the first floor, and, on the second floor, the library and the philosophy chamber, but, unlike the old hall, it contained no bedrooms. To tell how, from time to time, it lost its various

uses, until in our day it has only lecture rooms and departmental libraries, would be to trace the expansion of the Colonial College into the American University.

The building of Harvard Hall was, in fact, the completion of the Colonial College. The five halls standing in 1766, with the old President's House, stood unchanged and without increase when the Revolution came. From them the students migrated to Concord while the British troops held Boston, and into them American troops entered while Washington commanded in Cambridge. We know that the College was very patriotic. Indeed, it can claim no small share in the Revolution. True, some of its officers and graduates had written verses in Latin, Greek, and English, and printed them in a volume called "*Pietas et Gratulatio Collegii Cantabrigiensis apud Novanglos*," and sent them to George III on his accession to the throne, following in this the example of the English universities; and the classes were still graded according to the social position of the students. But, for all that, Harvard was thoroughly American. It had drifted entirely away from the Cambridge traditions of its founders. It had bred Quincy and Otis and two Adamses. President Langdon was ready to fight or to pray for independence, and John Hancock had been chosen Treasurer because he was a patriot, and not because he was a good man for the place — he was, in fact, the worst Treasurer the College ever had. When the war ended, the College, with little or no change in its constitution or character, entered easily on its course as an American institution, thoroughly in sympathy with the ideas for which the Republic stands, and commended to popular favor by the eminence of its graduates in the public service.

As if to open the way into a larger future, the first Stoughton Hall, being in a ruinous state, was taken down in 1780, the year in which Harvard took the title "University." Its destruction certainly opened the way into the present Yard. It was not rebuilt until 1804, and then on a new site, north of Hollis, and it stood a year or more under the name "New Hall"; but in the end the old name was revived for it. The money to build it came from a lottery, and this method of raising funds, approved by the public opinion of those days, was again employed in 1812, when Holworthy was built. This was the last hall to be named for an English benefactor. The man so honored was Sir Matthew Holworthy, who died in 1678, and left the College £1,000. Holworthy Hall is the youngest of the buildings commonly called old, and its site is important because with Stoughton it formed the first corner in the main quadrangle of the Yard. From that time there was sure to be a quadrangle very much larger than the old one defined by Massachusetts, Harvard, and the first Stoughton, or the other defined by Harvard, Holden, and Hollis. In November, 1812, the President and Fellows appointed a committee "to devise the form and site of a building in the College grounds to include a Commons Hall"; and it was voted that in choosing a site the committee "have reference to other buildings which may in future be erected." The committee chose a site directly opposite the main entrance. Charles Bulfinch was the architect, and the Hall when completed was called University.

University was well named, whether we consider the uses to which it has been put or the time at which it was built. President Kirkland was in office, and his



Houdin

"VIEW OF THE COLLEGES AT CAMBRIDGE, MASSACHUSETTS."

1795

administration is usually taken as marking the entrance of Harvard into the life of a true university; and of this university life the new hall has been the centre. For years, the religious exercises and the students' commons made the building important to all members of the University community; and the administrative machinery has always been operated from this point. In President Kirkland's day, five new professorships were established, and the departments of Divinity, Law, and Medicine were organized in university fashion. The Massachusetts Medical College, in Boston, and Divinity Hall, in Cambridge, gave evidence that the Yard was not to be the limit of physical expansion. They were forerunners of so many buildings for scientific and other purposes, built outside of the Yard, that it was soon only a question of time when the Yard itself would become of less practical importance than the departments outside. It was the beginning of a process which is still going on, and as a result of which we see Harvard admission examinations offered in Tokio and a Harvard Observatory on top of a Peruvian mountain.

But the Yard was not yet finished. President Quincy, who succeeded Kirkland, saw two very important changes in it. Close by the old meeting-house and between it and Massachusetts, Dane Hall was built in 1832, through the liberality of Nathan Dane, and for fifty years it was the University School of Law; here Greenleaf and Story and Parsons lectured. In 1845, important changes were made in the building. In 1871, to make room for Matthews Hall, it was moved to the south, so that it occupied nearly the site of the old meeting-house which had been taken down in 1833.

Gore Hall, begun in 1837, does not belong to the main quadrangle at all. It was, in fact, the beginning of a second quadrangle; but evidently not by design. The original Gore Hall was nothing more than the western portion of the present building, but it was then sufficient in size to harbor the largest library in the country; and it was expected to suffice for the accumulations of a century. Excepting University, it was the only stone building in the Yard, and it shares with University the distinction of touching the interests of more men, within and without the University, than any other of the Harvard buildings.

The main quadrangle as we now see it was not completely outlined until the building of Grays Hall in 1863. Meantime, however, in 1857-58, Boylston Hall and Appleton Chapel had risen on opposite sides of Gore, Appleton serving to define the northern limit of the new quadrangle. Both had their origin in the benefactions of wealthy Bostonians, from whom they took their respective names. Appleton Chapel supplanted University Hall as the centre of the religious life of the University, as University Hall had supplanted Holden and Harvard. Boylston, the first of the buildings distinctly dedicated to the physical sciences, may be regarded as a humble beginning of an extremely potent development in the later history of the University. Grays, an unpretentious dormitory, taking its name from a family eminent in the law and eminent in generosity to the University, was the last building erected in the Yard before the present era of unprecedented expansion began with the inauguration of President Eliot in 1869.



Fisher, Pinxt.

"SOUTH VIEW OF THE SEVERAL HALLS OF HARVARD COLLEGE."

1763

Amos & Smith, Sc.

In the Yard, three new dormitories, with Sever Hall, the Fogg Museum of Art, Robinson Hall, Emerson Hall, and Phillips Brooks House, indicate the eagerness with which the new vigor presses into the spaces still left for the builder. They may serve also to indicate the chief source of energy; for they are all examples of a munificence unexampled until our own times in the history of benefactions to American universities. They are, indeed, cheering proofs that in our Republic generous and wealthy citizens are willing to play the part of those royal and noble patrons to whom, in the Old World, learning is indebted for its stateliest temples. The three dormitories, Weld, Matthews, and Thayer, have completely filled out the line of the main quadrangle. Sever fixes the eastern limit of the second quadrangle.

It has been said that University Hall is still the centre of University life. That is true enough; but in another sense Memorial Hall, though it stands outside the yard, is also the centre. The aim of the University has always been to train men for high service, and Memorial commemorates the military service which the sons of the University rendered in the Civil War. First conceived in the enthusiasm with which Harvard welcomed those of her graduates who came back alive from the war, it was built at last by the contributions of hundreds of alumni and friends who wished to put into enduring form their reverence for those who never returned. Its tower is the first object to catch the eye of one who approaches the University; its lesson outlasts all others in the minds of those who go away. Without it, and that for which it stands, Harvard might still be a great University, but not what it aims to be, — an adornment and a support to the Republic.

THE FENCE AND GATES

The fence and gates surrounding the Yard, with the exception of the Johnston, Meyer, Class of 1890, and McKean gates, were given by various alumni classes. That all the sections might harmonize, the task of designing the newer sections was given to a single firm, Messrs. McKim, Mead and White. Nevertheless, an attempt has been made to give to each section an individual character. There is space on all the gates for suitable inscriptions, but in some cases these have not yet been added.

The Johnston Gate, at the main entrance of the Yard, was the first to be built—in 1890. It was followed in 1891 by the Meyer Gate on the north side. All the others have been erected since 1900. In the following pages the several gates and sections of the fence are mentioned in order, beginning at the corner of Quincy Street, and going west and north.*

The Retaining Wall and Terrace of the **Class of 1880**, built in 1901, round off the corner of the Yard defined by Quincy Street and Quincy Square, and extend

* The stranger will find it convenient to familiarize himself with the locations of the several buildings and gates, by means of the large concrete and bronze map of the Yard erected in 1906 by the Harvard Memorial Society in front of University Hall. On this map are indicated not only the position, shape, name, and date of each building, but also the boundaries of the several lots of land of which the Yard is made up, with the date at which each lot was acquired for College use.



THE CLASS OF 1877 GATE



THE CLASS OF 1890 GATE

westward from Quincy Street a little way beyond Plympton Street.

The Gate and Fence of the **Class of 1890**, built in 1901, continuing the line westward from the retaining wall, were given by Mrs. Wirt Dexter, in memory of her son, Samuel Dexter, of the Class of 1890. On a tablet, under the shield, is the following inscription : —

IN MEMORY OF
SAMUEL DEXTER
OF THE CLASS OF 1890
b. CHICAGO NOV 30 1867
d. BOSTON MAY 4 1894

Over the gateway, as one enters, are inscribed the following words : —

ENTER
TO GROW IN WISDOM

On the other side is this inscription : —

DEPART
TO SERVE BETTER THY COUNTRY AND THY KIND

The Gate and Fence of the **Class of 1877**, built in 1901, continue the line from the fence of the Class of 1890. The gate opens upon the driveway leading to Gore Hall. Connected with this gate is a porter's lodge.

The Gate and Fence of the **Class of 1889**, built in 1901, are at the entrance to the path east of Boylston Hall. The fence extends to a point even with the western corner of Boylston Hall. This section balances the section occupied by the gate and fence of the Class of 1890

The McKean Gate section, built in 1901, occupies the space between Boylston Hall and Wadsworth House. It was given by the members of the Porcellian Club. In the left wing of the gateway is a stone tablet inscribed as follows: —

THIS GATE IS ERECTED TO THE MEMORY OF
JOSEPH McKEAN
BY THE MEMBERS OF THE PORCELLIAN CLUB
OF WHICH HE WAS THE HONORED FOUNDER

In the right wing is a similar tablet, with this inscription: —

THE McKEAN GATE
THE REVEREND JOSEPH McKEAN STD LLD
BORN AT IPSWICH MASSACHUSETTS 19 APRIL 1776
DIED AT HAVANA CUBA 17 MARCH 1818
A GRADUATE OF THIS COLLEGE 1794
TEACHER OF YOUTH MINISTER OF THE GOSPEL
BOYLSTON PROFESSOR OF RHETORIC AND ORATORY 1809-1818

The Gate and Fence of the **Class of 1857**, built in 1901, occupy the space from Wadsworth House to Dane Hall, the gate being almost in the centre.

The Gate and Fence of the **Class of 1875**, built in 1900, extend from Dane Hall northward a distance of about fifty feet. On the entablature of the gate are these inscriptions: —

OPEN YE THE GATES
THAT THE RIGHTEOUS NATION WHICH KEEPETH THE TRUTH
MAY ENTER IN
and

AEDIFICATA • ANN • DOM • MDCCLXXX • COLL • HARV • CCXXIII



THE JOHNSTON GATE



THE CLASS OF 1857 GATE

The Fence of the **Class of 1873**, built in 1900, extends from the section of the Class of 1875 to the Johnston Gate. As there is no occasion for a gate, there is merely an ornamental brick and stone panel, imbedded in which is a smaller tablet of greenish slate inscribed with the class numeral.

The Johnston Gate, at the main entrance to the Yard, was built in 1890, and was the gift of Samuel Johnston, of Chicago. It was designed by Charles Follen McKim. The ironwork was given by Mrs. George von L. Meyer, of Boston. On a tablet in the right wall is the following inscription, the passage being taken from "New England's First Fruits," a pamphlet issued in London in 1643, and containing the first printed account of the College:—

AFTER GOD HAD CARRIED VS SAFE TO NEW ENGLAND
 AND WEE HAD BVILDED OVR HOVSSES
 PROVIDED NECESSARIES FOR OVR LIVELY HOOD
 REARD CONVENIENT PLACES FOR GODS WORSHIP
 AND SETLED THE CIVILL GOVERNMENT
 ONE OF THE NEXT THINGS WE LONGED FOR
 AND LOOKED AFTER WAS TO ADVANCE LEARNING
 AND PERPETVATE IT TO POSTERITY
 DREADING TO LEAVE AN ILLITERATE MINISTRY
 TO THE CHVRCHES WHEN OVR PRESENT MINISTERS
 SHALL LIE IN THE DVST
 NEW ENGLANDS FIRST FRVITS

A tablet in the left wall bears this inscription :—

BY THE GENERAL COVRT OF MASSACHVSETTS BAY
 28 OCTOBER 1636 AGREED TO GIVE 400℥
 TOWARDS A SCHOALE OR COLLEDGE WHEAROF 200℥
 TO BEE PAID THE NEXT YEARE & 200℥
 WHEN THE WORKE IS FINISHED & THE NEXT COVRT
 TO APPOINT WHEARE & W^T BVILDING
 15 NOVEMBER 1637 THE COLLEDG IS ORDERED
 TO BEE AT NEWETOWNE
 2 MAY 1638 IT IS ORDERED THAT NEWETOWNE
 SHALL HENCEFORWARD BE CALLED CAMBRIGE
 13 MARCH 1638—9 IT IS ORDERED THAT THE COLLEDGE
 AGREED VPON FORMERLY TO BEE BVILT AT CAMBRIDG
 SHALBEE CALLED HARVARD COLLEDGE

On the outside of the gate posts are sculptured the
 seals of Harvard College and of Massachusetts.

On the inside of the same posts are the inscriptions :—

Right	Left
SAMVEL JOHNSTON	CANTABRIGIA
CHICAGINIENSIS	LITERIS ANTIQVIS
ALVMNVS A OODCCCIV	NOVIS INSTITVTIS
QVI CINCINNATIS	DECORA
A OODCCCXXXIII NATVS	
VIXIT ANN LIII	
TEST FIERI IVSSIT	

The Gate and Fence of the **Class of 1874**, built in
 1900, extend from the Johnston Gate to the pathway
 south of Holden Chapel, the gate being the entrance to
 this path.

The Gate and Fence of the **Class of 1870**, built in 1901, extend from this point to the pathway north of Holden Chapel. The gate is in the centre of the section, and opens on a sun dial, also given by the Class of 1870. This dial is surrounded by hedges. The base is inscribed: CLASS OF 1870. Around the upper part of the pedestal the following sentence is engraved: ON THIS MOMENT HANGS ETERNITY. On each side of the gate is a post with a tablet, and the two tablets are inscribed as follows: —

The tablet on the left:	The tablet on the right:
GIVEN	ERECTED
TO THE COLLEGE	BY THE CLASS OF
BY	1870
THE CLASS OF	IN THE YEAR
1870	1901

The Gate and Fence of the **Class of 1886**, built in 1901, extend from the section of the Class of 1870 to Phillips Brooks House, the gate opening upon the pathway north of Holden Chapel. As yet, there are no inscriptions.

The Gate and Fence of the **Class of 1881**, built in 1905, extend from the northwest corner of Phillips Brooks House to the pathway west of Holworthy. The gate serves as an entrance to the Phillips Brooks House. Over the head of the gate is the inscription: —

“YE SHALL KNOW THE TRUTH AND THE TRUTH SHALL
MAKE YOU FREE.”

The Gate and Fence of the **Class of 1876**, built in 1900, extend from the pathway west of Holworthy, to

which the gate is the entrance, about fifty feet along the Cambridge Street side of the Yard. On an iron shield surmounting the gate are the following inscriptions : —

GIVEN	HOLWORTHY
BY THE CLASS	GATE
OF 1876 ON	IN MEMORY OF
COMMENCEMENT DAY	DEAR OLD TIMES
1901	

The Meyer Gate, at the Cambridge Street entrance to the Yard, opposite the delta on which stands Memorial Hall, was the gift of George von Lengerke Meyer, of Boston, of the Class of 1879. It was designed by Charles Follen McKim, and was erected in 1891.

The Fence and double Gate of the **Classes of 1887 and 1888**, built in 1906, lie just opposite Memorial Hall, and extend from the northeast corner of the Fogg Museum to a point about eighty feet east of the Gates. On the wall over the fountain and water basin which occupy the space between the two gates are the class numerals, '87 and '88, and on the pavement in front is the inscription : —

GIFT
OF
THE CLASSES OF 1887 AND 1888

The Gate and Fence of the **Class of 1885** were erected in 1904. They lie directly behind Sever Hall on Quincy Street. The fence extends the entire length of Sever Hall.



DOUBLE GATE OF THE CLASSES OF 1887 AND 1888



THE MEYER GATE

BUILDINGS AND GROUNDS

Massachusetts Hall was built from a grant of £3,500 made in 1718 by the Province of Massachusetts. It was finished in 1720, and was at first used as a dormitory. After the Battle of Lexington, it was used as a barracks by the Continental soldiers, and was somewhat damaged. About one hundred years after the erection of the building, the lower part was given over to rooms for lectures and societies; and in 1870 the whole building was devoted to the public uses of the University. In the lower hall, the Phi Beta Kappa dinners were given from about 1870 until 1902; and here, on Commencement morning, the President and other officers of the University welcome the Governor of the Commonwealth, his staff, and the invited guests of the day. (See also p. 16.)

Against the north side of the Hall is a bronze bust of James Russell Lowell, the work of the sculptor, Daniel C. French. The inscription on the base is as follows:—

JAMES RUSSELL LOWELL

BORN 1819 DIED 1891

AB 1838 LLD 1884

PROFESSOR 1855-1886

PATRIOT SCHOLAR

ORATOR POET

PUBLIC SERVANT

"I, FREEDOM, DWELL WITH
KNOWLEDGE; I ABIDE
WITH MEN BY CULTURE
TRAINED AND FORTIFIED."

GIVEN BY THE CLASS OF 1883

1905

Harvard Hall, built in 1765-66 by the Province of Massachusetts, at a cost of \$23,000, replaced the first Harvard Hall, which was destroyed by fire in 1764. As the older building was occupied at the time by the General Court, which had been driven from Boston by the small-pox, the Province of Massachusetts Bay considered itself responsible for the loss, and therefore built the present Harvard Hall. This at first contained the chapel, the library, the philosophical apparatus, and the dining hall of the College. Like Massachusetts Hall, it was used and somewhat damaged by the troops in Revolutionary times. Here Washington was received in 1789. Except Holden Chapel, it is the only one of the early College buildings which has never been used as a dormitory. It is now used for lectures and recitations, and contains the libraries of the Departments of the Classics, History and Government, and Economics. (See also p. 15.)

The Library of the Department of the Classics (Room 3) contains dictionaries, general treatises on grammar, history, antiquities, literature, philosophy, etc., together with all the most recent and many of the more valuable older editions of Greek and Latin authors; in all, about 4000 volumes. The books recommended by the several instructors of the Department for collateral reading in their courses are all included. On the walls hang likenesses of professors in the Department from the beginning of the nineteenth century.

The Principal Lecture Room of the Classical Department (Room 1) is equipped with an excellent (electric light) stereopticon and about 3600 slides illustrating Greek and Roman life, art, archaeology, etc., etc. The



MASSACHUSETTS HALL



HARVARD HALL

Department has also in its various lecture rooms about 5000 mounted photographs and a considerable collection of casts of Greek and Roman sculpture. The collection of classical antiquities in Sever 25 and 27 consists of original material for the study of archaeology and art, such as Greek and Roman coins, vases, and terra-cottas, Roman inscriptions, and specimens of building materials (including a large number of specimens of Roman marbles). A set of fac-similes of ancient coins and the Scott Collection of portraits of Julius Caesar are at present deposited in the Fogg Museum of Art.

The History Reading Room (Room 2) contains two department libraries: —

The Library of the Department of History and Government is made up of books on English and continental history and government — over 3000 volumes — and 900 on American history. The collection on American history is frequently called the *Evans Library*.

The Library of the Economics Department contains about 1350 volumes.

These three collections are designed to provide copies of the books most commonly used in connection with the courses of study in the subjects to which they relate. The last two are especially intended for the use of the large elementary courses in history and economics.

Hollis Hall, built by the Province of Massachusetts Bay in 1763, at a cost of nearly £5,000, and named for the first Thomas Hollis, contains 32 rooms. Hollis, who established two chairs, the Hollis Professorship of Divinity and the Hollis Professorship of Mathematics and Natural Philosophy, was the greatest benefactor of the University

during the first century of its existence; and his example was followed by other members of his family for several generations. The building was from the first used as a dormitory, but some of its rooms have been occupied by societies, such as the Harvard Washington Corps, the Engine Company, and the Pi Eta Society. Like the other older buildings, it was given over to the Revolutionary soldiers for a time, and suffered damage thereby.

Holden Chapel. — Madam Holden, wife of Samuel Holden, M.P., Governor of the Bank of England, — who was regarded as the head of the English Dissenters, — together with her daughters, gave to the College £400. With this money the first building designed solely for religious uses by the University, Holden Chapel, was built in 1744. On its west front the Holden arms are carved in wood. When the present Harvard Hall was built, Holden ceased to be used for religious services. For a while, it contained four rooms, being divided into two stories, each of which consisted of two apartments. Those on the lower floor were used as chemical laboratory and lecture room; those on the upper floor as anatomical museum and lecture room. But after the building of Boylston Hall each story was converted into one large recitation room, and later all these were thrown together into a single room. In recent years, Holden has been used chiefly for society meetings, rehearsals and trials of the musical clubs, and by the Department of Music.

Stoughton Hall, built in 1805 at a cost of about \$23,000, of which three-fourths was secured by a public lottery authorized by the State, was named for Lieutenant



HOLLIS HALL



STOUGHTON HALL

Governor William Stoughton, who, as Chief Justice of Massachusetts Bay, presided at the witchcraft trials in 1692. It was he who gave the funds for the first Stoughton Hall, built in 1700. The present Stoughton, at first called New Hall, was used from the beginning as a dormitory. The Hasty Pudding Club formerly met and had reading rooms here. Like Hollis Hall, the building has 32 rooms.

Phillips Brooks House. — This building, situated at the northwest corner of the Yard, was erected as a memorial to Phillips Brooks, of the Class of 1855, Preacher to the University, Overseer, and Protestant Episcopal Bishop of Massachusetts. The building, completed in 1899, was designed by Alexander Wadsworth Longfellow, of the Class of 1876. Nearly six hundred persons contributed to the fund, which amounted to \$71,046.54, with \$4,790.19 interest. Of this total, \$10,000 was given in trust to the University as an endowment to help carry on the various activities to which the House is devoted.

On the first floor, the west end is occupied by Brooks Parlor, a large reception room for social uses. Here, on Friday afternoons, students are welcomed at informal teas given by the wives of University officers. Across the hallway are the Randall Rooms, named in memory of Belinda Lull Randall and John Witt Randall, and a general office room used by the graduate secretary and officers of the various societies quartered in the House. In the Randall Rooms are the offices of the Social Service Committee and of the graduate adviser under whose guidance the various philanthropic undertakings are carried on. On the second floor, in the west end,

are the Noble Rooms, named in memory of William Belden Noble, '85, and occupied by the St. Paul's Society. One is a general meeting room, the other is fitted up as a small chapel. In the east end of this story are the Shepard Rooms, named in memory of Ralph Hamilton Shepard, '92, a member of the Christian Association, who died in 1894, and left five thousand dollars to promote Christian work at Harvard. The rooms are occupied by the Harvard Christian Association. There is a reading room where the leading daily, weekly, and monthly papers are kept on file, a library on religious subjects, a committee room, and an assembly room. Between the Shepard Rooms and the Noble Rooms is a small Committee Room. On the third floor is Peabody Hall, named in memory of the Reverend Andrew Preston Peabody, formerly Preacher to the University. The hall, arranged for meetings and lectures, has a seating capacity of two hundred and twenty. In this story are also the rooms of the St. Paul's Catholic Club. Facilities for writing and studying are also provided in several rooms of the House, and these, as well as the reading rooms and libraries, are freely open to all members of the University. In addition to the societies already mentioned, the Phillips Brooks House Association and Harvard Mission have their headquarters in the House, not having special rooms assigned to them, but using for their committee meetings or larger gatherings any rooms that may be available. The Phillips Brooks House Association, organized in 1904, includes in its membership the membership of all the previously existing societies, and is designed to promote coöperation among them and to perform for them services which can best be under-



HOLDEN CHAPEL



PHILLIPS BROOKS HOUSE

taken by one central organization, such as typewriting and other office work, publishing the Phillips Brooks House Handbook, giving the annual reception to Freshmen, etc. The Harvard Mission, also started in 1904, is a movement supported by members of all the religious societies and by others, for the realization among Harvard graduates and undergraduates of greater interest and activity in Christian service abroad. Other University organizations, such as the Graduate Club, Mathematical Club, etc., use the House for regular or occasional meetings and receptions.

In the hallway, there is a bronze bust of Phillips Brooks, the gift of Mr. Lorin F. Deland; and on the walls are the following inscriptions: —

On the east wall, above the bust of Phillips Brooks: —

THIS HOUSE
IS DEDICATED TO
PIETY CHARITY HOSPITALITY
IN GRATEFUL MEMORY OF
PHILLIPS BROOKS

To the right of the bust: —

BORN IN BOSTON DECEMBER 13 1835
A B HARVARD 1855 VIRGINIA THEOLOGICAL SEMINARY 1859
RECTOR CHURCH OF THE ADVENT PHILADELPHIA 1859-1861
CHURCH OF THE HOLY TRINITY PHILADELPHIA 1862-1869
TRINITY CHURCH BOSTON 1869-1891
BISHOP OF THE PROTESTANT EPISCOPAL CHURCH
IN MASSACHUSETTS 1891-1893
OVERSEER OF HARVARD COLLEGE 1870-1882 1883-1889
PREACHER TO HARVARD UNIVERSITY 1886-1891
D D UNION 1870 HARVARD 1877 OXFORD 1885 COLUMBIA 1887
DIED IN BOSTON JANUARY 23 1893

On the left of the bust : —

A PREACHER
OF RIGHTEOUSNESS AND HOPE
MAJESTIC IN STATURE IMPETUOUS IN UTTERANCE
REJOICING IN THE TRUTH
UNHAMPERED BY BONDS OF CHURCH OR STATION
HE BROUGHT BY HIS LIFE AND DOCTRINE
FRESH FAITH TO A PEOPLE
FRESH MEANING TO ANCIENT CREEDS
TO THIS UNIVERSITY
HE GAVE
CONSTANT LOVE LARGE SERVICE HIGH EXAMPLE

On the north wall between the front door and the
entrance to Brooks Parlor : —

PHILIP STANLEY ABBOT
BORN 1867 DIED 1896
HARVARD A.B. 1890 A.M. LL.B. 1893
ALWAYS A LEADER
HE ON JANUARY 23 1893
STIRRED HIS FELLOW STUDENTS
TO UNDERTAKE THIS MEMORIAL BUILDING
BUT BEFORE ITS COMPLETION WAS KILLED
IN CLIMBING MOUNT LEFROY
RICH IN NATURE FRIENDS FORTUNE
HE ADDED
WHATEVER TOIL AND CHARACTER CAN GIVE
TO MAKE SHORT LIFE COMPLETE

On the north wall, at the entrance to Randall Room : —

RALPH HAMILTON SHEPARD
 BORN 1867 HARVARD A.B. 1892
 ONE OF HARVARD'S YOUNGEST BENEFACTORS
 STUDIOUS EARNEST DEVOUT
 MEMBER OF
 THE CHRISTIAN ASSOCIATION
 THE RELIGIOUS UNION
 THE SAINT PAUL'S SOCIETY
 DYING IN 1894
 HE GAVE FIVE THOUSAND DOLLARS
 TO PROMOTE CHRISTIAN WORK
 AT HARVARD COLLEGE

On the east wall, at the entrance to Randall Room : —

BELINDA LULL RANDALL
 BORN 1816 DIED 1897
 WHO THROUGH THE TRUSTEES OF HER ESTATE
 MADE PROVISION
 WITHIN THE PHILLIPS BROOKS HOUSE
 FOR THE ADMINISTRATION OF CHARITY
 BY THE STUDENTS OF THIS UNIVERSITY

JOHN WITT RANDALL
 BROTHER OF BELINDA BORN 1813 DIED 1892
 A.B. HARVARD 1834 M.D. 1839
 WHOSE NAME SHE WISHED
 TO BE ASSOCIATED WITH HERS
 IN HER MANY AND GREAT BENEFACTIONS

LOVELY AND PLEASANT IN THEIR LIVES
 AND IN THEIR DEATH THEY WERE NOT DIVIDED

On the south wall, at the left side of the rear entrance :

WILLIAM BELDEN NOBLE
 BORN 1860 DIED 1896
 HARVARD A B 1885
 ARDENT JOYOUS GENEROUS
 YEARNING FOR KNOWLEDGE
 IMPASSIONED FOR HOLINESS
 HE SOUGHT TO BE A MINISTER
 AFTER THE PATTERN OF PHILLIPS BROOKS
 BUT DIED BEFORE ORDINATION
 MINDFUL OF HIS UNFINISHED AIMS
 HIS WIFE ESTABLISHED
 THE NOBLE LECTURES
 IN 1898

Holworthy Hall was built in 1812, at a cost of nearly \$25,000, from the proceeds of a lottery authorized by the State of Massachusetts. It was named for Sir Matthew Holworthy, an English merchant, who at his death in 1678 left to the College £1,000, the largest single gift received in the seventeenth century. Used always as a dormitory, this hall has for many years been considered, on account of its large rooms, the most desirable in the Yard, and was for a while used exclusively by Seniors. The practice has been partly revived, and rooms in Holworthy, Hollis, and Stoughton are now assigned by preference to members of the Senior Class. Room 12, which was visited in 1860 by the Prince of Wales and in 1871 by the Grand Duke Alexis of Russia, contains pictures of these personages presented by themselves. Holworthy has 24 suites of rooms, each consisting of a study and two single bedrooms. Lists of the successive



HOLWORTHY HALL



THAYER HALL

occupants of each room in Hollis, Stoughton, and Holyoke have been compiled by members of the Harvard Memorial Society. Printed copies of these lists are posted in each room and in the entries of these buildings.

Thayer Hall was erected in 1869-70 at a cost of about \$100,000. It was the gift of Nathaniel Thayer, a merchant of Boston, a member of the Board of Overseers from 1866 until 1868, and a Fellow of the College from 1868 until 1875. He gave it in memory of his father, Nathaniel Thayer, of the Class of 1789, a tutor in the College in 1792-93, and of his brother, John Eliot Thayer, the founder of the Thayer Scholarships. This dormitory, which contains 66 suites of rooms, was designed to accommodate 116 students and three officers. It also contains a common-room, and the office of the Medical Visitor.

University Hall, built in 1813-15, of white Chelmsford granite, after a design by Bulfinch, cost about \$64,000. The western façade was originally adorned by a massive portico with stone pillars. This, however, was removed in 1842 in order to get better light in the basement. At the beginning University contained the students' commons hall, covering the whole of the first floor, and the chapel, which occupied the central portion of both the second and third floors; the outer ends of these two floors being devoted to recitation rooms. Down to 1858 the chapel, a room of peculiar beauty and dignity, was used for daily prayers and also for Sunday services. The pulpit was on the east side; the galleries on the north and south ends were used by the families of

professors, while students and faculty occupied the floor. At a later time it was divided horizontally and transformed into lecture rooms entered from the second and third floors; but in 1896 it was restored to its original form (except for the galleries) and is now used for the meetings of the Faculty of Arts and Sciences. On its walls hang portraits of professors and benefactors of the University.

Commons continued in University Hall down to 1849, and here also the Commencement dinners were held until 1841. Here were entertained Presidents Monroe, Jackson, and Van Buren, and the Marquis de Lafayette. The whole building, with the exception of the basement (one end of which is occupied by the College Printing Office), is now devoted to administrative uses, and contains the offices of the President of the University, the Secretary to the Corporation, and the Deans and other officers of the departments under the Faculty of Arts and Sciences. On the first floor at the south end is the office of the Publication Agent (Room 2). Copies of the University Catalogue, of the President's Reports, of pamphlets describing the various departments and courses of study, and of other University publications may be obtained here. In front of the building is a map of the College Yard made of concrete and bronze, which strangers will find it profitable to study. (See the note on p. 24.)

Weld Hall, containing 53 suites of rooms, of which 22 are single and the rest double, was built in 1871-72, at a cost of about \$87,000. It was given by William Fletcher Weld in memory of his brother, Stephen Minot Weld, of the Class of 1826, a benefactor of the College,



UNIVERSITY HALL

a member of the Board of Overseers from 1858 until his death in 1867, and one of the first to conceive the idea of Memorial Hall. It contains a common-room for the general social use of its occupants.

Grays Hall, built in 1863 by the College, at a cost of nearly \$40,000, is named for Francis Calley Gray, of the Class of 1809, a Fellow of the College from 1826 until 1836, John Chipman Gray, of the Class of 1811, a member of the Board of Overseers from 1847 until 1854, and William Gray, of the Class of 1829, a member of the Board of Overseers from 1866 until 1872, all three benefactors of the University. It has always been used as a dormitory, and has 52 suites of rooms, each consisting of a study and an alcove. Antiquarian research has made it seem probable that the first of all the College buildings stood on or near the site of this hall.

Wadsworth House was built partly with a grant of £1,000 made by the General Court of Massachusetts Bay in 1726, the year after President Wadsworth was inaugurated; partly with other funds, as the Court would not grant enough to complete it. It was finished in 1727, and cost altogether about £1,800. It is the oldest building now standing except Massachusetts Hall. At first called the President's House, it was occupied by successive presidents until 1849. It was the headquarters of Washington and Lee for a short time in 1775, until more spacious quarters were obtained in the house on Brattle Street, now known as Craigie House, which was later the residence of Longfellow. Undoubtedly, some of the first despatches sent by Washington to

Congress, to Richard Henry Lee, and to General Schuyler, were written in Wadsworth. Towards the close of the century, the building was enlarged, and after 1849 it was used as a dormitory and boarding house for students. It is at present used as a dormitory, but one room is given over to the Preacher to the University for the time being.

Holyoke House, on Massachusetts Avenue, opposite Grays Hall, was erected by the President and Fellows in 1870-71, at a cost of over \$121,000, and contains 50 suites of rooms. The ground floor is occupied by stores.

Matthews Hall, completed in 1872, at a cost of about \$113,000, was the gift of Nathan Matthews, of Boston, who stipulated that half the net income from the dormitory should be used to aid needy and deserving scholars; students for the ministry of the Protestant Episcopal Church and sons of ministers of that church to be preferred. The fifteen Matthews Scholarships were thus established. This dormitory, containing 60 suites of rooms, is thought to stand on the site of the old Indian College, built in 1654.

Dane Hall, built with \$7,000, given by Nathan Dane, of Beverly, of the Class of 1778, a delegate to the Continental Congress, was completed in 1832; but when Matthews Hall was built Dane was moved a short distance south of its original site. With the addition of 1844-45, the hall has cost somewhat more than \$23,000 (including the Dane gift). The Law School occupied the building until 1883, when Austin Hall was built. In 1882, certain



WADSWORTH HOUSE



HOLYOKE HOUSE

parts of Dane were given over to the Harvard Coöperative Society, which occupied the entire basement and half of the first story until 1904. The upper story of eleven rooms was for a time used as a Psychological Laboratory. The Laboratory for Qualitative Analysis now occupies the basement and part of the first floor. A part of the upper floor is assigned to the use of the debating societies. The Bursar's Office occupies the rear half of the first floor.

College House, on Massachusetts Avenue, opposite Dane Hall, was originally called Graduates' Hall. It was erected at the expense of the College in 1832, and, with additions, has cost \$59,000. In 1845, when it was occupied largely by law students, an addition was made in order to give room for a store and for the office of the Omnibus Company. The addition was made at the expense of a building occupied by students and called College House, or, more familiarly, "the old den." Undergraduates were first allowed to room in Graduates' Hall in 1846-47, but it was not until 1860 that the name was changed to College House. The upper floors contain 70 rooms; the ground floor is occupied by stores.

Boylston Hall was erected in 1857 with a fund bequeathed by Ward Nicholas Boylston, which was subsequently much increased by subscriptions. The building was enlarged by the addition of a third story in 1871, and the accommodations were still further extended in 1891, 1902, 1904, and 1905. It is occupied by the Department of Chemistry of the Faculty of Arts and Sciences of Harvard College.

On the entrance floor are four laboratories. *The Laboratory for Advanced Quantitative Analysis and Research* is in Room 2. In the weighing-room adjoining this laboratory is a collection of compounds illustrating the original work of the department. Smaller laboratories for research are entered through the Laboratory for Quantitative Analysis.

The Laboratory for Advanced Physical Chemistry is in Room 4; the *Laboratory for Elementary Chemistry* is in Room 5.

In the basement are two *Laboratories for Descriptive Inorganic Chemistry*, a plant for the manufacture of liquid air, and a room for physico-chemical research.

On the second floor are the lecture rooms (Rooms 7, 9), and the Director's office (Room 10). There are also two small private laboratories for research on this floor. A selected collection of specimens is exhibited in two cases in the entry. *The Library and Reading Room* (Room 8) is also on this floor. It contains the more important chemical text-books and periodicals (800 books, 2400 periodicals, and 6000 dissertations), to be used for consultation only. It is supplementary to the larger collection of books on chemistry in Gore Hall.

On the third floor is the *Laboratory for Organic Chemistry* (Room 11), with places for students of research in the adjoining room (Room 12). On the same floor is the *Laboratory for Elementary Quantitative Analysis* (Room 13), and two private laboratories.

The store-rooms for apparatus and chemicals are in the garret. *The Laboratory for Qualitative Analysis* occupies the basement and part of the first floor of Dane Hall.



DANE HALL



BOYLSTON HALL

Appleton Chapel, the second building devoted solely to religious worship, was the gift of Samuel Appleton, of Boston, who left \$200,000 to the College with the direction that one-fourth of it should be spent for a chapel. It was built at a cost of nearly \$68,000, and was completed in 1858. In the interior, a good many changes have been made: the roof proved defective and had to be altered; the galleries are of recent date. The later improvements are due to the liberality of the children of Nathan Appleton, of Boston. Here are held the daily religious services of the University, morning prayers at a quarter before nine on week-days, the Sunday evening services at half-past seven, and the Thursday afternoon vesper services at five o'clock. The latter, held during the winter and spring months (November to May), are brief, largely musical, with an address by one of the Preachers. Occasionally, the Board invites other preachers, of various communions, to conduct the Sunday evening services. The music at all services is by the College choir, a full male chorus of 25 sopranos and altos and 16 tenors and basses.

On the left of the main entrance is a mural monument to President James Walker, originally erected in the Harvard Church in Charlestown, of which President Walker had been pastor, and given to the University (with other memorials) in 1905 on the dissolution of that society. The central object, the bust of President Walker, was executed by Miss Anne Whitney. The inscriptions on the monument read as follows:—

JAMES WALKER DD LLD

BORN IN BURLINGTON

MASSACHUSETTS

16 AUGUST 1794

GRADUATED AT

HARVARD COLLEGE

1814

PASTOR

OF THIS CHURCH

1818-1839

OVERSEER OF

HARVARD COLLEGE

1825-1836 1864-1874

FELLOW

1834-1853

ALFORD PROFESSOR

1838-1853

PRESIDENT

1853-1860

DIED IN CAMBRIDGE

23 DECEMBER 1874

TO COMMEMORATE

HERE

HIS CHARACTER

HIS GENIUS

AND HIS SERVICES

TO THIS CHURCH

TO THE CAUSE

OF EDUCATION

AND TO

LIBERAL CHRISTIANITY

“THEY THAT BE WISE

SHALL SHINE AS THE

BRIGHTNESS OF THE

FIRMAMENT

AND THEY THAT TURN

MANY TO

RIGHTEOUSNESS

AS THE STARS

FOR EVER AND EVER”

Daniel XII 3.

ERECTED XI JANUARY MDCCCLXXXIII

BY A DAUGHTER OF

REUBEN HUNT

A FOUNDER OF THIS SOCIETY

AND ONE WHO LOVED AND HONORED

JAMES WALKER

and on a small bronze plate below is inscribed,

GIVEN TO HARVARD COLLEGE

BY THE HARVARD CHURCH IN CHARLESTOWN

ON ITS DISSOLUTION IN 1905



APPLETON CHAPEL

On the wall to the right of the pulpit is a greenish bronze tablet erected to the memory of the Reverend Andrew Preston Peabody, and inscribed as follows : —

ANDREW PRESTON PEABODY, D.D., LL.D.
 PLUMMER PROFESSOR OF CHRISTIAN MORALS AND PREACHER TO
 THE UNIVERSITY
 BORN AT BEVERLY, MARCH 19, 1811
 DIED AT CAMBRIDGE, MARCH 10, 1893
 AUTHOR, EDITOR, TEACHER, PREACHER, HELPER OF MEN
 THREE GENERATIONS LOOKED TO HIM
 AS TO A BENEFACTOR, A FRIEND, A FATHER
 HIS PRECEPT WAS GLORIFIED BY HIS EXAMPLE
 WHILE FOR THIRTY-THREE YEARS
 HE MOVED AMONG THE TEACHERS AND STUDENTS
 OF HARVARD COLLEGE
 AND WIST NOT THAT HIS FACE SHONE

The management and conduct of the religious services of the University are entrusted to a Board consisting of the Parkman Professor of Theology and five preachers to the University annually appointed.

In June, 1886, immediately after this Board was constituted, attendance upon all religious services was, upon the unanimous recommendation of the Board, made wholly voluntary.

Each member of the Board of Preachers conducts daily morning prayers for about three weeks in each half-year, and each preaches on four Sunday evenings. The preacher conducting morning prayers is in attendance every morning during his term of duty at Wadsworth House 1, and is at the immediate service of any student who may desire to consult him.

Many eminent preachers from different parts of the United States and even from England, and belonging to various religious denominations, have served on the Board of Preachers.

Among them have been the following : Edward Everett Hale, Alexander McKenzie, George A. Gordon, Phillips Brooks and William Lawrence, Bishops of Massachusetts, Brooke Herford, Henry Van Dyke, Lyman Abbott, Washington Gladden, Leighton Parks, J. Estlin Carpenter of Oxford (England), E. Winchester Donald, Samuel McChord Crothers, Bishop John H. Vincent, Philip S. Moxom, George Harris, President of Amherst College, William DeWitt Hyde, President of Bowdoin College, William H. P. Faunce, President of Brown University, William J. Tucker, President of Dartmouth College, Charles Cuthbert Hall, President of the Union Theological Seminary.

THE UNIVERSITY LIBRARY

History.—The nucleus of the College Library was the little collection of about 330 volumes bequeathed by John Harvard in 1638. The Puritan scholar's library was naturally strongest in the theological and polemical works of the day, but it had a good number of classics, Æsop, Cicero, Epictetus, Juvenal, Horace, Isocrates, Lucan, Pliny, Plutarch, Plautus, Terence, and others, and some modern works of literature and history, such as Bacon's "Advancement Essays," Chapman's Homer, Quarles's Poems, Camden's Remains. Of all these, however, there now remains but one volume, Downname's Christian Warfare; the rest were destroyed in the fire of 1764.

The history of the Library from that day to this is a record of generous gifts, great and small, from lovers of learning in this country and in England. Harvard's bequest stirred the magistrates of the Colony to contribute books to the value of £200. Peter Bulkley, the *minister* settled in Concord, early gave 37 volumes; Gov-



GORE HALL (THE COLLEGE LIBRARY)

ernor Winthrop gave 40 volumes; Sir Kenelm Digby, in 1655, Catholic and Royalist though he was, sent over 29 volumes, probably out of friendship for Winthrop. The bequests of the Rev. Ezekiel Rogers, of Rowley, in 1661, of Dr. John Lightfoot, an eminent English divine, in 1675, and of Theophilus Gale, philosopher, philologist, and historian, in 1678, rapidly added to the value of the collection. Beginning in 1719, Thomas Hollis, his two brothers, John and Nathaniel, the son and the grandson of Nathaniel, both named Thomas, and Thomas Brand Hollis, whom the last Thomas Hollis made his heir, in succession devoted to the College an unremitting interest and generosity, which showed itself in the establishment of professorships and scholarships, in constant gifts of books for the library and of philosophical apparatus for scientific work, and ended only with the death of the last named in 1804. The elder Hollis, a strict Baptist, but liberal-minded, was pleased with the "free and catholic spirit of the Seminary," and during the last ten years of his life was constant in its service and constantly stirring the interest and appealing to the generosity of others. The last Thomas Hollis showed his interest in the College by donations of books before the fire of 1764, and after the fire immediately subscribed £200 for the purchase of books; furthermore, in the course of the next six years, he sent hither 41 cases of books, and at his death, in 1774, left a bequest of £500.

When Harvard Hall was burned in 1764, the library was destroyed. This collection, amounting to about 5000 volumes, was by far the most valuable in the country, and its loss was regarded as a public calamity. But so great was the general sense, both here and in England, of the importance of replacing it, so strenuous were the

efforts of the Committees appointed by the Corporation and the Overseers, and so lively the interest of others on all sides, that the library soon surpassed its former size, and by 1790 had increased to about 12,000 volumes. The long roll of donors for 1764 is printed in Quincy's History (ii. 485). Besides the gifts of Thomas Hollis, there were gifts from Governor Bernard (10 guineas and more than 300 volumes), from John Hancock (£554), from the province of New Hampshire (£300), from the Archbishops of Canterbury and York, from George Whitefield, who also by his influence procured large numbers of books from others in England, and from the various societies for propagating the Gospel and promoting Christian knowledge.

In June, 1775, when Cambridge was occupied by the Continental troops, the library was removed to Andover, and in November of the same year a part of it was taken to Concord whither the College had been transferred. The students and the faculty returned to Cambridge in June, 1776, but it was not till May, 1778, that the books were restored to Harvard Hall. Here the library remained till the erection of Gore Hall in 1838, to which the President and Fellows devoted a part of the bequest received from Governor Christopher Gore in 1829. In 1877, enlargement was necessary, and the new east wing was built at an expense of \$90,000. Twenty years later, the need for further enlargement was met by remodelling old Gore Hall. In the lower half of the building a three-story stack, estimated to hold over 200,000 volumes, in place of the 80,000 shelved there before, was built; the upper half was made into a reading room with seats for 218 readers. This room is regarded simply as a temporary expedient; when a new reading room can be built, this

may be converted into a stack like the floors below it. A further addition was built in the summer of 1907 on the north side of the building, at an estimated cost of about \$35,000.*

Present Administration. — United in administration with the College Library in Gore Hall, and together with it forming the University Library, are 10 departmental libraries and 28 smaller special reference libraries. The extent of the several collections in August, 1906, was as follows : —

Gore Hall (the College Library)	465,500
Bussey Institution (Jamaica Plain)	4,600
Phillips Library (Observatory)	11,900
Herbarium Library (Botanic Garden)	9,800
Law School	96,500
Divinity School	36,000
Medical School (Boston)	12,000
Dental School (Boston)	1,000
Museum of Comparative Zoölogy	42,400
Peabody Museum	3,400
Arnold Arboretum (Jamaica Plain)	14,500
Twenty-eight special reference libraries	44,600
	<hr/> 742,200

From 24,000 to 37,000 volumes are ordinarily added to the whole collection by gift and purchase each year.

* For references to the printed and manuscript sources for the history of the College Library see "The Librarians of Harvard College," by A. C. Potter and C. K. Bolton, and "Descriptive and Historical Notes on the Library of Harvard College," by A. C. Potter, published as Nos. 52 and 55 of the Bibliographical Contributions of the Library. The list of John Harvard's books and of other early gifts is printed in Mr. Andrew McF. Davis's "Few notes concerning the records of Harvard College," Bibl. Contrib. No. 27.

The annual income of the College Library from its funds for the purchase of books is about \$19,000; and the annual gifts for the same purpose average about \$5,000 more; the expenses of administration are about \$44,000.

The College Library in Gore Hall is open, during term time, every week-day (except holidays) from 9 A.M. to 10 P.M., and on Sundays from 1 to 5.30 P.M. During the summer vacation the Library closes at 5.30 P.M. (at 1 o'clock on Saturdays) and is not open on Sundays. The College Library is for the use of the whole University, and books may be borrowed by students (three volumes at a time), and by instructors and other officers. All other persons are free to consult books in the Library, and under certain conditions receive permission to borrow. Professors from other colleges are always welcome. Books are also lent to other libraries when they can be spared without injury to work going on in Cambridge.

Officers of the University have direct access to the shelves in all parts of the Library, and students engaged in advanced work are allowed access to those parts of the collection with which they are occupied. All students have the direct use of about 24,000 volumes in the reading room and the adjoining rooms.

The Books of the Library. — No complete statement of the strength of the Library in different departments is given here; but mention is made of the chief special fields in which the Library is strong as a result of notable gifts or collections received.

The collection relating to American history, biography, genealogy, and geography numbers about 34,000 volumes, of which over 22,000 relate to the United States. The

basis of the collection was the libraries formed by Professor Ebeling and David B. Warden, the former the gift of Colonel Israel Thorndike, of Boston, in 1818, and the latter presented by Samuel Atkins Eliot, in 1823. (See Winsor's *Narrative and Critical History of America*, vol. I, p. 3.) Both collections are rich in early publications.

The collection on American slavery numbers 1,080 volumes, including over 150 volumes of pamphlets, and is largely the result of the assiduity of Charles Sumner and of Thomas Wentworth Higginson.

Jared Sparks, of the Class of 1815, President of the University from 1849 till 1853, left his collection of manuscripts—mostly copies, but including some originals, such as the papers of Governor Bernard—to the Library, and his family has since placed in the Library his private manuscripts, correspondence, diaries, etc.

Other original manuscripts relating to American history are the papers of Arthur Lee, which were left to the Library in 1827. Two other parts of the same collection were given at the same time to the American Philosophical Society in Philadelphia and to the Library of the University of Virginia.

The collection on German history now numbers nearly 12,000 volumes. The greater part of this has been received within the last few years and is known as the Hohenzollern Collection; it is a gift from Assistant Professor A. C. Coolidge in commemoration of the visit of Prince Henry of Prussia to the University in 1902. It is Professor Coolidge's intention to increase this collection until it shall number 10,000 volumes. The collection is especially strong in the publications of German historical societies, and in early and local German history.

About 2,800 volumes came from the library of Professor Konrad von Maurer, given by Professor Coolidge in 1904; the rest have been bought, mainly in Germany.

A recent anonymous gift of over \$1,000 has established a collection on Dutch history, to be known as the John Lothrop Motley Collection.

The books on the history of the Ottoman Empire and the relations between Turkey and Europe come in large part from the library of Count Paul Riant, presented in 1900 by Mr. J. R. Coolidge and Assistant Professor A. C. Coolidge. The collection numbers over 3,500 volumes.

The collection on the Crusades and the Crusading Knights and the Latin kingdoms of Constantinople, Jerusalem and Greece, numbering 900 volumes, is also largely composed of books from the Riant library.

The Library received under the will of Thomas Carlyle his collection of books on Cromwell and Frederick the Great, numbering 470 volumes.

There are also a number of interesting special collections on various countries and cities that have been mainly built up in the last few years by annual gifts from several graduates. Among these may be mentioned China, Japan, South America, Morocco, and Algiers; London, Paris, Florence, Venice, and other towns of Northern Italy; and Italian history of the Risorgimento period.

The collection of English literature has been greatly strengthened in the last few years by means of generous gifts received from many friends of the Library. By means of these gifts many rare and early editions have been bought that could not have been purchased with the income ordinarily available. Especial attention has been given to building up the section devoted to the writers

of the latter part of the seventeenth and those of the eighteenth centuries. Among authors that are particularly well represented may be mentioned Chaucer, Shakespeare, Donne (of whose works a notable collection was received in the library of Professor Norton), Dryden, Milton (including a valuable collection of his works bequeathed by the late George Ticknor of Boston), Swift, Byron, Browning, and Tennyson. The collection of the original editions of the dramatists includes some of the earlier writers, notably Shirley and Massinger, but is especially strong in the restoration and eighteenth century periods. The whole collection of English literature contains nearly 22,000 volumes.

The collection of books by and relating to Dante contains 2,600 volumes. In 1884, Professor Charles Eliot Norton gave to the College Library the larger part of his valuable collection on Dante, and in 1896 the collection of Dante literature (175 volumes) of George Ticknor, Smith Professor, 1817-35, was given to the Library by his heirs. The Dante Society has for many years made an annual appropriation for the purchase of books in this department, and the Library is under constant obligation to foreign writers, especially Italians, who have presented many of their works. There is also a good collection on Tasso, partly received in the Riant library in 1900, but largely increased since.

The collection of folklore and mediaeval romances, numbering over 10,300 volumes, is supposed to be the largest in existence. Professor Francis James Child, who is chiefly responsible for its formation, based upon the material here brought together his *English and Scottish Popular Ballads*. There is also an excellent collection of chap-books, English and foreign.

The Slavic collection now comprises 7,300 volumes relating to the history and literature of the Slavic nations.

The collection of Scandinavian literature and history contains about 5,300 volumes. Nearly half of this number was received in 1904 as a gift from Assistant Professor A. C. Coolidge and formed part of the library of Professor Konrad von Maurer of Munich.

The collection of Sanskrit literature includes about 450 printed texts, about 500 manuscripts, the gift of Fitz-Edward Hall, of the Class of 1846, and about 1300 other manuscripts purchased for the Library in India by Professor Lanman. Many of the printed books were given by Dr. Henry Ware Wales, of the Class of 1838; to increase the collection, his brother, Mr. George Washington Wales, gave for many years \$200 a year; and an income of \$300 a year for the purchase of books in this department has lately become available, provided from a fund bequeathed by the former. In 1899, a further addition of nearly 500 volumes was received from Mr. Hall, and at the death of Mr. Henry C. Warren, of Cambridge, a large part of his valuable library of Sanskrit literature was added to this collection.

The collection of classical literature and philology forms one of the large and important divisions of the Library, comprising all the principal Greek and Latin authors both in early and in later critical editions and commentaries. There is also much material on classical archaeology and philology. The whole collection includes nearly 25,000 volumes.

An extensive collection of Judæo-German (Yiddish) books, and another of Slovak literature have been gathered through the efforts of Professor Wiener.

The Library is well supplied, particularly with the older books, in all departments of theology and Biblical criticism. The collection of printed sermons probably numbers about 10,000.

In 1888, John Harvey Treat, of the Class of 1862, presented his collection of works on ritualism and doctrinal theology, numbering 587 titles; and lately the collection of books on the catacombs and early Christian antiquities has been largely increased at his expense.

The collection of music, including both printed books relating to music and musical scores, numbers over 5,600 volumes. Provision for its increase is made by a fund left by Francis Boott, of the Class of 1831.

The collection of books on the theatre is based on the library formed by the late Robert W. Lowe, of London, and presented in 1903 by Mr. John Drew, of New York. Additions have since been made, largely by means of gifts from a recent graduate in Boston, until the collection now numbers 1,600 volumes.

The library of Professor Charles Eliot Norton was presented in 1905 by a few of his friends and admirers, and the rarer portion of the collection has already been received. Containing only about 600 volumes, it was nevertheless a most precious addition. There are many specimens of early printing and of early wood-cut engraving, and also a number of old manuscripts. There are rare first editions of such authors as Shelley, Keats, and Wordsworth, and also many books that are interesting from having belonged to eminent men and bearing their autographs. There is a special fund for adding other rare books to the collection from time to time.

In 1903, the collections formed by the late Professor Ferdinand Bôcher on Molière and the dramatists contemporary with him and on Montaigne (about 2,500 volumes and pamphlets) were presented by Mr. James H. Hyde, '98. A catalogue of the portion relating to Molière was issued as Bibliographical Contribution, No. 57.

In 1894, the private library of Francis Parkman was received by bequest.

The family of the poet Longfellow, Smith Professor, 1836-54, have given to the Library from time to time volumes of American poetry, most of them presentation copies, amounting altogether to nearly 700 volumes.

Charles Sumner bequeathed his whole library to Harvard in 1874. The collection was a general one, but it embraces many books of curious and bibliographical interest, and interesting autographs. Sumner's correspondence, mounted in 171 volumes, has also come to the Library since the death of Mr. Edward L. Pierce, his biographer.

In 1892, Mr. John Bartlett, of Cambridge, gave to the Library his collection of books on angling, fishes, and fish culture, numbering 1014 volumes and 269 pamphlets. Mr. Bartlett also gave his collection of Proverbs and Emblems, comprising about 250 volumes.

The collection of loose maps numbers over 24,000 sheets, the basis of it being that formed by the late Professor Ebeling of Germany, which came to the Library with his collection of Americana in 1818. It has been added to from time to time, particularly so as to complete the cartographical publications of the United States government and the topographical surveys of the principal European countries. The collection of bound maps and atlases numbers over 900 volumes.

Catalogues of many of the special collections mentioned above have been printed in the series of Bibliographical Contributions issued by the Library from time to time.

The University Archives are kept in the Library, the Librarian being also keeper of the University Records. Supplementary to the Archives is a collection of *Harvardiana*, numbering over 4500 volumes and pamphlets.

The President's House, the central of the three dwellings on the Quincy Street side of the Yard, was completed in July, 1861, at a cost of over \$16,000, paid from a fund established by a gift of \$10,000 received in April, 1846, from the Hon. Peter C. Brooks. It has been occupied by President Felton, President Hill, and President Eliot.

The house to the south of the President's House was built about 1820 by Dr. Thomas Foster. From 1822 to 1832 it was the home of the poet, Richard H. Dana, and here in 1830 his sister was married to Washington Allston. In 1839 a revolving dome was erected on the top of the house and it became the first Observatory of the College, being occupied from 1839 to 1844 by William Cranch Bond, the first Harvard Astronomer. For many years it was the residence of Professor (afterwards President) Cornelius C. Felton. Later it was occupied by Dr. Andrew P. Peabody, Class of 1826, the beloved Preacher to the University from 1860 to 1881. Its present occupant is Professor George Herbert Palmer.

The house adjoining the President's on the north was long occupied by Professor Josiah Parsons Cooke; its

next occupant was Professor N. S. Shaler, Dean of the Scientific School; it is now the residence of Professor W. W. Fenn, Dean of the Divinity School.

The Harvard Union. See p. 160.

Warren House, formerly the residence of Professor Charles Beck, then of his daughter, Mrs. Möring, and finally of the late Henry Clarke Warren, of the Class of 1879, a Sanskrit scholar and a generous benefactor of Harvard University, was bequeathed to the University by its last owner with the land on which it stood,—the present site of the Harvard Union.

The house is now used by the Department of Indic Philology and by the Division of Modern Languages, and contains the *Sanskrit Library* (900 volumes), *The Child Memorial Library* of English (4500 volumes), *The Lowell Memorial Library of Romance Literature* (1500 volumes), *The Library of the French Department* (2500 volumes), and *The Library of the German Department* (1300 volumes). There are also rooms for the meeting of some of the smaller advanced courses in these departments.

The Child Memorial Library was founded in 1897 by a subscription among the friends and the former pupils of Professor Francis James Child to perpetuate the memory of his services to the University and to learning. This subscription resulted in a sum of nearly \$11,000, the income of which is spent under the direction of the Department of English for the purchase of books relating to the study of English.

The Lowell Memorial Library of Romance Literature includes about 700 volumes from the library of the late James Russell Lowell, acquired in 1900 by means of subscriptions received from many of Mr. Lowell's friends and pupils. The books all relate to the earlier periods of the Romance literatures, modern literature not being included in the scope of the library. It is hoped that a fund to provide for its increase may be secured.

The Library of the Department of French is, like the other collections in Warren House, strictly a reference library for the use of instructors and students in the higher courses. It comprises a careful selection of the most useful works in French literature from the middle ages to the present day. The books are classified, and a card catalogue facilitates consultation.

The Library of the Department of Indic Philology, in the second story of the House, contains books on the religions, the antiquities, and the literature of India, in part supplementing and in part duplicating the collection in the College Library. Some 500 manuscripts of Sanskrit and Prakrit texts, purchased for the University by Professor Lanman in India, are at present housed in the Semitic Museum. These, with about as many more given to the University by Dr. Fitzedward Hall, of the Class of 1846, and some 800 others sent from India, form the largest collection of Indic manuscripts in America.

This library also contains maps and many large, mounted photographs of Indic antiquities and scenery. From these pictures there have been made several hundred lantern-slides, illustrating especially subjects concerning the archaeology of India, and this collection of slides is from time to time increased. In the hall are placed three

cases with over 340 electrotpe reproductions, made from the originals in the British Museum, of coins struck in India before the Mohammedan invasion of 1000 A.D.

The library also possesses the Siamese edition of the Sacred Books of the Buddhists, in 39 volumes, made by the King of Siam to commemorate the 25th anniversary of his accession to the throne, and by him given to the University.

Emerson Hall, the building for Philosophy, is situated in the College Yard south of Sever Hall. It was completed in December, 1905, and its cost, including equipment, was approximately \$200,000. This sum was contributed by various friends of the University. The largest single gift was one of \$160,000 from an anonymous donor, \$50,000 of which was applied to the building fund, and \$100,000 to be used as a permanent endowment for the Department of Social Ethics. \$25,000 was contributed anonymously for furniture for the equipment for the Psychological Laboratory, and for the decoration of the Committee Room. The building was designed by Mr. Guy Lowell, of Boston.

In the main hall of the first floor there stands a large bronze statue of Emerson by Mr. Frank Duveneek, of Cincinnati. This floor contains a large lecture hall seating 500, a seminary room, a conference room, a committee room for the use of members of the Division of Philosophy, and three lecture rooms.

The second floor contains the general Library of Philosophy and the various rooms used by the Department of Social Ethics. The Library of Philosophy contains over 2900 bound volumes and all of the more important phil-

osophical and psychological periodicals. Most of the books belong to the Robbins Library, the gift of Mr. Reginald C. Robbins, of Boston, of the Class of 1892. This gift provided for the purchase of selected works on the History of Philosophy, Systematic Philosophy, Logic, Aesthetics, Philosophy of Religion, and Ethics. The Schelling Collection, comprising first editions of this author's writings and numerous volumes of contemporary criticism, was the gift of Professor Josiah Royce. There is also a special collection of books relating to Psychology.

The rooms of the Social Ethics Department include a lecture room with a capacity of 200, a seminary room, a conference room, a library, and two rooms occupied by the Social Museum. The library of 1900 volumes is a special collection for the use of students of Social Ethics, with conveniences for study and research. The Social Museum is a collection of graphical material illustrating by photographs, models, diagrams, and charts many movements of social welfare and industrial progress. Among such illustrative material may be named the exhibits made at the St. Louis Exposition by the German Government-Insurance System, and by German industrial establishments concerned with the welfare of their working people; exhibits from France, Belgium, Italy, and Japan, illustrating coöperation, municipal progress, improved dwellings, and philanthropic institutions; a partial duplicate of the exhibit of the United States Bureau of Labor concerning wages, strikes, and trade-unions; charts representing life insurance statistics; illustrations of welfare work in American industries; photographic collections illustrating charity, industrial methods, immigration, prison reform, etc.

The third floor is occupied by the Psychological Laboratory, founded in 1891 by Professor William James. It comprises a lecture room with demonstration apparatus, a class room, a vivarium for the students in Comparative Psychology, a workshop for the making and repairing of instruments, a store-room for these, a battery room from which electricity is distributed through the Laboratory, a photographic room, and fifteen research rooms. Aside from the instrumental equipment, many of the rooms embody special features of design that adapt them to the requirements of the most diverse psychological investigations.

Sever Hall, completed in 1880 at a cost of about \$115,000, is named for Mrs. Ann E. P. Sever, who left \$100,000 to the College. It was designed by Henry Hobson Richardson, of the Class of 1859. It contains 37 rooms, used chiefly for recitations and lectures. The special library of the *Department of Mathematics* is temporarily placed in Sever Hall until more suitable provision in the College Library or elsewhere shall be made for it. In the various rooms are displayed numerous photographic reproductions, including portraits of literary and historical celebrities, important paintings, and views of historical scenes and buildings and of Paris and other French cities. There are also numerous plaster casts of ancient and modern objects of art. The *Collection of Classical Antiquities* in Sever 25 and 27 consists of original material for the study of archaeology and art, such as Greek and Roman coins, vases and terra cottas, Roman inscriptions, and specimens of building materials (including a large number of specimens of Roman marbles).



EMERSON HALL



NELSON ROBINSON JR. HALL

Persons interested can usually get access to the rooms by applying to the officer in charge, or, in his absence, to the porter of the hall.

Nelson Robinson Jr. Hall, the Architecture Building, in the College Yard, at the corner of Quincy Street and Broadway, was built in 1900-01, and, with its equipment and endowment, was given by the parents of Nelson Robinson, Jr., of New York, of the Class of 1900, as a memorial to him, their only child, who died in his Junior year at College. The entire gift — building, equipment, and endowment — approached half a million dollars. The building contains on the ground floor a hall of casts, a large lecture room, a room for freehand drawing, an exhibition room, a small lecture room, and a room for modelling, besides instructors' and coat rooms. This floor is open to visitors from 1 to 5 in the afternoon. To visit the other parts of the building, one must be accompanied by an officer of the University. The hall of casts, which runs through two stories, contains full size casts of important architectural subjects. These include one corner of the temple of Niké Apteros (the Wingless Victory) from the Acropolis at Athens, the orders of the Temple of Theseus at Athens, the Mausoleum at Halikarnassus, the temple of Vesta at Tivoli, and a part of the Arch of Trajan at Beneventum; on the western wall is a cast of the balcony and window enframing of the Cancelleria palace in Rome. This hall also contains casts of the fountain by Verrochio in the courtyard of the Palazzo Vecchio in Florence; of the Roman altar found at Ostia; of an Egyptian lion from the Vatican Museum; of the bronze statue of the charioteer recently excavated at

Delphi; of the Diadumenos of Delos; of a table stand from the house of Cornelius Rufus at Pompeii; and examples of Greek capitals and of Roman cornices, vases, Renaissance candelabra, and a few smaller objects. There are also a number of original marbles, chiefly Roman and Italian Renaissance. Among them are several Corinthian capitals of different periods, two marble shafts found near the railroad station in Rome, fragments of candelabra and cornices, and an ancient marble Roman Corinthian capital found at Corneto, the gift of several graduates in architecture. A full size cast of the doorway of the Temple of Hercules at Cori serves as the enframing of the large entrance door in this hall.

Serving in the same capacity for the door of the large lecture room opposite the main entrance there is a cast of a doorway in the interior of the Palazzo di Venezia in Rome. This lecture room is provided with two stereopticons in a gallery, and contains on its walls in glass cases fine examples of textiles, prints, and embroideries, mostly Oriental. There also hang on the rear wall some drawings by modern artists and copies of the work of old European masters. At the northeastern end of the corridor is the room for freehand drawing, containing an interesting collection of casts, mainly of subjects of mediaeval architecture, such as capitals from the triforium gallery of Laon Cathedral, crockets from Troyes, details from Rheims, and Romanesque capitals from Moissac. On the walls and in the cases provided for the purpose are especially valuable collections of architectural drawings in water-color and pencil by such English masters as Turner, Prout, Cox, Girtin, Harding and Cotman, Ruskin, Holland, and Burney. There is also a collection of American



SEVER HALL



THE WILLIAM HAYES FOGG ART MUSEUM

drawings, the larger number of which are by Joseph Lindon Smith. Many of these are loaned to the department by their owner, Dr. Denman W. Ross. Mrs. David P. Kimball, of Boston, presented to the department in 1901 the large painting of the rock-cut temple of Abu Simbel which hangs in this room. The corresponding painting of the interior of the temple of Philae was given by Mr. A. C. Hemenway in 1905. Both paintings are the work of Mr. J. L. Smith.

Just outside the door to the freehand drawing room in the corridor are full size casts of portions of the Renaissance choir screen in Chartres Cathedral.

At the left of the western entrance is a room now used chiefly for advanced classes in drawing, containing many casts of Greek, Roman, and Renaissance detail on its walls, and in glass cases in the centre of the room are examples of pottery, chiefly Oriental, loaned to the department by Dr. Denman W. Ross. The room opposite, to the right of the west entrance, is used as an exhibition room for building materials, models, etc. It contains a model of two bays of the nave of the Cathedral of Rheims.

The second story contains the large drawing rooms, and in close connection with these are the library and a small drawing room.

The William Hayes Fogg Art Museum, nearly opposite Memorial Hall, is a fireproof building of Indiana stone, erected at a cost of about \$150,000. It was completed in the year 1895. It was founded by Mrs. Elizabeth Fogg, of New York, in memory of her husband, whose name it bears. Mrs. Fogg bequeathed to the

President and Fellows for this purpose the sum of \$220,000. Out of this sum, with its accrued interest, after the cost of the building had been paid, the expenses of the first equipment of the Museum were met, and the remainder (about \$50,000) is reserved as a fund to defray a part of the cost of maintenance and administration.

The building is of two stories, having a lecture-room, with a seating capacity of about five hundred, attached. The ground floor is divided into a large hall and five smaller rooms. In the main exhibition hall are gathered several important original works of Greek sculpture, as follows: A marble statue of Meleager found in the year 1895 at San Marinella, near Rome; an Aphrodite and a Narcissus, also in marble; a colossal head in red marble; and several Greek and Greco-Roman reliefs. Here are, also, casts of some of the finest examples of Greek and Greco-Roman sculpture, illustrating the work of all periods of Greek art. Among the important objects represented are the colossal statue of Apollo from the temple of Zeus at Olympia; a large portion of the frieze and the pediment sculptures of the Parthenon; the Hermes of Praxiteles; the Venus of Melos; various sculptures lately found at Epidaurus; a colossal relief from the Arch of Trajan at Beneventum; and others. In the middle west room is a small number of casts from Egyptian and Assyrian sculptures; in the northwest room a classified collection of electrotypes from Greek and Roman coins, a small collection of fine Greek vases, ancient bronzes, gold ornaments, and glass cinerary urns, and a collection of French and Italian medals of the Renaissance. In the east room are a few casts from mediæval sculptures, and a considerable number of casts from sculptures of

the Italian Renaissance. Among these last are the beautiful recumbent statue from the tomb of Ilaria del Carretto by Jacopo della Quercia, the St. George of Donatello, the David of Verrochio, and several of the finest works of Michael Angelo—including two figures from the Medicean tombs, the Pietà of Rome, and the Madonna of S. Lorenzo.

An interesting series of casts from portraits of Julius Caesar, presented by their collector, Mr. F. J. Scott, to the Classical Department, are also exhibited here.

On the walls of the corridor of the upper floor a large number of photographs from drawings by the Italian and German masters of the Renaissance will be found, together with a number of solar enlargements of photographs from Egyptian, Greek, and Mediaeval architectural monuments. In the large upper gallery are several original examples of Italian painting of high character, original works in water-color by Turner, and a small number of water-color drawings by artists of the early English school. The remaining space in this gallery is at present used for the exhibition, by relays, of photographs from works of art of various schools and epochs. The west rooms on this floor are devoted to the storage of photographs and to the work of administration.

The collection of photographs numbers more than 40,000. It affords a wide range of illustrations of the Fine Arts of all epochs and all countries, including architecture, sculpture, and painting. These photographs, which are kept in dust-proof cases, are conveniently classified and catalogued for use. They are always accessible to members of the University, and other suitable persons, on application to the Director's assistants. Large

tables are provided for convenient examination of the photographs, and conveniences for tracing, copying, and note-taking are afforded.

In the larger east room on this floor, and in a part of the great gallery, are deposited the Gray and the Randall collections of engravings, which together include about 30,000 prints. The Gray Collection was bequeathed to Harvard College, with provision for its increase and maintenance, by Francis Calley Gray, of the Class of 1809. It is rich in prints from the works of the great early German and Italian wood and metal engravers and etchers; and contains many specimens of later forms of engraving, including numerous examples of more modern work. This collection is exhibited by relays in glazed dust-proof cases; and access to the prints in the storage cases may always be had, under suitable regulations, on application to the Director or his assistants.

The Randall Collection was given to the College in the year 1892 by Miss Belinda L. Randall in accordance with the wishes of her brother, John Witt Randall, of the Class of 1834, together with the sum of \$30,000 to establish a fund, the income of which is to be used, so far as it may be needed, for the care and preservation of the prints; any surplus income may be used at the discretion of the President and Fellows for the general purposes of "the department of Engravings and allied branches of the Fine Arts." This large collection, gathered by Mr. Randall to illustrate the history of the art of engraving, contains some very important prints.

The Randall Collection is accessible under the same regulations as those which apply to the Gray Collection.

The Museum is open to the public from 9 A.M. till 5 P.M. on week-days, and on Sundays from 1 till 5 P.M.

The Germanic Museum is temporarily housed in the Rogers Building, more generally known as the Old Gymnasium. This was built in 1858 at a cost of about \$9,500, of which \$8,000 was given anonymously by a graduate of the University. The name of the donor was made known after his death; he was Henry Bromfield Rogers, of the Class of 1822. Until the erection of the Hemenway Gymnasium in 1878, this building was used as a gymnasium; it then served as a storehouse and carpenter shop till 1894, when it was occupied and remodelled by the Department of Engineering, which continued to occupy it until 1902, when the department removed to Pierce Hall.

The Germanic Museum is intended to illustrate by means of plaster casts and other kinds of reproduction the outward aspect of the development of Germanic civilization. The present collection, apart from a large number of photographs of German architectural and sculptural monuments chiefly from the Königlich Preussische Messbildanstalt, contains models and reproductions of representative works of German industry and art from the first to the eighteenth century. Among them are the following: A figure of a Roman soldier (1st century); a model of the Nydam Boat, from the Museum of Kiel (5th century); a figure of a Frankish Warrior, from the Museum of Mainz (7th century); the Bernward Column and the bronze gates of Hildesheim Cathedral (11th century); Choir Screen of St. Michael's at Hildesheim (12th century); the Golden Gate of Freiberg Cathedral (13th century); statues of Emperor Henry II, Empress Kunigunde and a Sibyl from Bamberg Cathedral (13th century); the Rood-Screen and eleven Founders' statues

from Naumburg Cathedral (13th century); statues of a Wise and a Foolish Virgin, of the Ecclesia and Synagoga, and of two Virtues, and a relief of the Death of Mary from Strassburg Cathedral (13th century); the Praying Virgin of the Germanic Museum at Nürnberg (15th century); a model of the Hohkönigsburg in Alsace (15th century); figure of a Swiss Warrior from a fountain at Schaffhausen (16th century); Peter Vischer's Tomb of St. Sebald's at Nürnberg, Tomb of Count and Countess of Henneberg at Römheld, and statue of King Arthur at Innsbruck; statue of Emperor Maximilian from his Tomb at Innsbruck; reliefs and statuettes from Brüggenmann's Altarpiece at Schleswig Cathedral; Adam Kraft's Seventh Station; Renaissance door from the Hirschvogel Saal, Nürnberg; galvanoplastic reproductions of plaquettes by Floetner and other masters of the 16th century; Andreas Schlüter's equestrian statue of the Great Elector at Berlin; Schadow's statue of Frederick the Great at Stettin; galvanoplastic reproductions of representative specimens of German gold- and silversmith's work from the 15th to the 18th century.

The Museum is open to the public Mondays and Fridays from 9 A.M. till 5 P.M., and Thursdays and Sundays from 1 till 5 P.M.

Memorial Hall and Sanders Theatre. — When the President and Fellows voted to accept this building, they took occasion to say of it that it was "the most valuable gift which the University has ever received, in respect alike to cost, daily usefulness, and moral significance." The daily usefulness of the building is chiefly due to its western end, which serves as a dining hall for



MEMORIAL HALL AND SANDERS THEATRE

students; the eastern end is the principal place of assembly on occasions of academic ceremonial; the moral significance of the whole is set forth especially in the transept, which one enters first.

Sanders Theatre, as the eastern end is called, is named for Charles Sanders, of the Class of 1802, from whose bequest it was built. The dining hall and the transept were built by a committee of the alumni, with funds given by numerous graduates and friends of the University, as a memorial to the sons of Harvard who fought for the preservation of the Union, and especially to those who fell.

At a meeting of graduates in Boston, in May, 1865, a committee of eleven was appointed to consider the subject of a permanent memorial. They reported at the next Commencement in favor of a memorial hall. A committee of fifty was named, with full power to act. Charles Greely Loring, of the Class of 1812, was made chairman, and many distinguished gentlemen were among his associates. The plan of a memorial hall, providing a meeting place for the alumni, a dining hall for the students, and a commemorative monument to the soldiers of Harvard, was adopted; William Robert Ware, of the Class of 1852, and Henry Van Brunt, of the Class of 1854, were appointed architects; and a building committee and a committee on finance were appointed to carry out the work. The old "Delta," long a playground, was secured for a site, the University obtaining Jarvis Field in exchange. The corner-stone was laid October 6, 1870; the dining hall and the memorial vestibule were finished in the summer of 1874; Sanders Theatre was first occupied Commencement Day, 1876. The whole building was transferred to

the President and Fellows in July, 1878. The total cost up to that time was \$368,482. Many additions and adornments have since been given by classes, individual graduates, and friends. The extreme length of the building is 305 feet; the width through the axis of the transept is 113 feet; the tower is 190 feet high. The clock in the tower is the gift of the Class of 1872, and was placed there in 1897. On the exterior of the theatre, at the east end, are busts of seven orators — Demosthenes, Cicero, St. Chrysostom, Bossuet, Pitt, Burke, and Webster, all executed in sandstone by John Evans, of Boston; at the west end, in the cloister porch, are a marble statue of President Everett, by Hiram Powers, a bronze bust of President Walker, by Miss Anne Whitney, and a tablet erected to the memory of Edward Augustus Wild, of the Class of 1844, Brigadier General, United States Volunteers. The iron gates of the cloister were given by a member of the Class of 1871. Inscription: —

C · A · GOODNOW · A · B · 1871
FORES · SVA · PEC · F

The inscriptions on the outside of the building are as follows: —

The dedicatory inscription, beginning above the south entrance to the transept and ending above the north entrance, is as follows: —

MEMORIAE · EORVM
QVI · HIS · IN · SEDIBVS · INSTITVTI
MORTEM · PRO · PATRIA · OPPETIVERVNT
VT · VIRTVTIS · EXEMPLA
SEMPER · APVD · VOS · VIGEANT
SODALES · AMICIQVE · POSVERVNT

Which may be translated : —

In memory of
the men trained here
who
Gave their Lives for their Country
this Hall is built
by their Classmates and Friends
to the end that Ensamples of Manhood
be ever in honor among you.

The dates 1861 and 1865 are inscribed on the south front, though they form no part of the dedicatory sentence.

Above the great west window are the words *HUMANITAS · VIRTUS · PIETAS*, and below it: *AEDIFICATA · ANN · DOM · MDCCLXXI · ANN · COLL · HARV · CCXXXV ·*

In the interior of the transept, above the wainscoting, the two rising to a height of 24 feet, are marble tablets inscribed with the names of those students and graduates who fell in the war for the Union. Of these, 97 had been in Harvard College, 17 in the Medical School, 13 in the Law School, 6 in the Scientific School, 2 in the Divinity School, and 1 in the Astronomical Observatory. The dates of their deaths and the places where they fell are also given. Above the tablets are various inscriptions, as follows : —

On the east wall, in the centre : —

THIS HALL
COMMEMORATES THE PATRIOTISM
OF THE GRADUATES AND STUDENTS OF THIS UNIVERSITY
WHO SERVED IN THE ARMY AND NAVY OF THE UNITED STATES
DURING THE WAR FOR THE PRESERVATION OF THE UNION
AND UPON THESE TABLETS
ARE INSCRIBED THE NAMES OF THOSE AMONG THEM
WHO DIED IN THAT SERVICE

On the east wall near the south entrance, from Cicero, *Philippics*, 14, 34 : —

OPTIMA · EST · HAEC · CONSOLATIO
PARENTIBVS · QVOD · TANTA · REIPVBLICAE · PRAESIDIA · GENVERVNT
LIBERIS · QVOD · HABEBVNT · DOMESTICA · EXEMPLA · VIRTVTIS
CONIVGIBVS · QVOD · IIS · VIRIS · CAREBVNT
QVOS · LAVDARE · QVAM · LVGERE · PRAESTABIT

Translation: This is the best comfort unto their parents, that they have begotten such strong defences of the Republic, unto their children that they shall have of their own kindred examples of manhood, unto their wives that they shall be widows of husbands fitter for eulogy than for weeds.

At the other end of the east wall, from the Vulgate version of St. Luke, 17, 33 : —

QVICVNQVE · QVAESIERIT · ANIMAM · SVAM
SALVAM · FACERE · PERDET · ILLAM
ET · QVICVNQVE · PERDIDERIT · ILLAM · VIVIFICABIT · EAM

“Whosoever shall seek to save his life shall lose it; and whosoever shall lose his life shall preserve it.”

Below this is the hexameter verse, adapted from Lucretius, 3, 869 : —

MORTEM · VITAM · MORS · IMMORTALIS · ADEMIT

That is : —

Immortal death hath reft their mortal life away.

On the west wall, proceeding from south to north : —

Cicero's version of Simonides's epigram on the Spartans who fell at Thermopylæ (*Tusc. Disp.* 1, 101) : —

DIC · HOSPES · SPARTAE · NOS · TE · HIC · VIDISSE · IACENTES
DV · SANCTIS · PATRIAE · LEGIBVS · OBSEQVIMVR

Translation : —

Tell Sparta, friend, you saw us lying here
Obedient to our country's holy laws.

From Cicero, *Philippics*, 14, 31 : —

O · FORTVNATA · MORS · QVAE · NATVRAE · DEBITA
PRO · PATRIA · EST · POTISSIMVM · REDDITA

Translation : O happy death when the debt to Nature
is paid with free choice for one's native land !

Adapted from the *Wisdom of Solomon*, 4, 13 : —

CONSVMMATI · IN · BREVI · EXPLEVERVNT · TEMPORA · MVLTA

They, “ being made perfect in a short time, fulfilled a
long time.”

From Plautus, *Amphitruo*, 649 : —

VIRTVS · OMNIBVS · REBVS · ANTEIT · PROPECTO
LIBERTAS · SALVS · VITA · RES · ET · PARENTES
ET · PATRIA · ET · PROGNATI · TVTANTVR · SERVANTVR

Translation : —

In sooth, 'tis Courage that surpasseth all :
The watch and ward of freedom, safety, life,
Of fortune, parents, offspring, fatherland.

From Cicero, *Philippics*, 14, 30 : —

GRATA · EORVM · VIRTVTEM · MEMORIA · PROSEQVI
QVI · PRO · PATRIA · VITAM · PROFVDERVNT

Translation : With grateful memory to honor them that
have yielded up life for native land.

From Cicero, *Philippics*, 14, 32 : —

BREVIS · A · NATVRA · NOBIS · VITA · DATA · EST
AT · MEMORIA · BENE · REDDITAE · VITAE · SEMPITERNA

Translation : A short life hath been given by Nature unto man ; but the remembrance of a life laid down in a good cause endureth for ever.

From Bacon, *Antitheta* 5, in his *De Augmentis Scientiarum*, lib. 6 : —

BRVTORVM · AETERNITAS · SVBOLES
VIRORVM · FAMA · MERITA · ET · INSTITVTA

Compare Bacon's *Essays*, 7 : “The perpetuity by generation is common to beasts ; but memory, merit, and noble works are proper to man.”

Adapted from the *Wisdom of Solomon*, 4, 1 : —

INMORTALIS · EST · ENIM · MEMORIA · ILLORVM
QVONIAM · ET · APVD · DEVM · NOTA · EST · ET · APVD · HOMINES

Translation : “The memorial” of these “is immortal : because it is known with God, and with men.”

Above the small doors in the west wall : —

ABEVNT · STUDIA · IN · MORES

From the Ovidian *Epistle of Sappho to Phaon*, and meaning : Our studies breed our habits.

RECTI · CVLTVS · PECTORA · ROBORANT

From Horace, *Odes*, 4, 4, 34, meaning : Right training is the strength of character.

The great south window in the transept was given by Martin Brimmer, of the Class of 1849, Fellow of Harvard College 1877-96, in memory of the sons of Harvard who fell in the Civil War. It was unveiled on Commencement Day, 1898. The artist, Sarah Wyman Whitman, writes of it thus: "The design of this window is to commemorate the forces which inspired these heroes. Love of the University is symbolized, at one end of the five lower panels, by the Scholar; and, at the other end, love of Country, by the Soldier. Above these are four cherubs, holding tablets inscribed with the heroic virtues (*Amor, Honor, Virtus, Patientia*); and higher still are angelic figures of praise; while the design culminates in a Rose, wherein the ascription of Glory to God is typified in color, with a choir of angels circling round the centre."

The inscriptions and subordinate scenes in the design are as follows:—

On the scrolls held by the angels on either side of the Rose, from *Psalms*, 115, 1: NON · NOBIS · DOMINE · NON · NOBIS · SED · TVO · NOMINI · GLORIA · SIT. Translation: "Not unto us, O Lord, not unto us, but unto thy name be the glory."

On the panel next the Scholar, a picture of Sir Philip Sidney giving the cup of water to the soldier, with an inscription as follows: VERE · TV · ES · DIGNVS · OMNI · SERVITIO · OMNI · HONORE · ET · LAVDE · AETERNA. From the *Imitatio Christi*, *Lib. III, Cap. X*, 45. Translation: Truly thou art worthy of all service, all honor, and all praise forever.

On the panel next the Soldier, a picture of St. Martin giving his cloak to the beggar. The accompanying inscription contains the saying of St. Martin when, at a crisis in

his life, he dedicated himself anew to the service of God. The Latin words are a translation by Mr. Brimmer from the passage in a French life of the Saint : SI · TIBI · OPVS · EST · MEO · LABORE · NON · RECVSO · LABOREM. In English : “ If my labor can serve thee, I will not withhold it.”

The inscription on the middle panel is : —

SALVE · QVISQVIS · ADES
 EORVM · ADSPICIS · NOMINA
 HARVARDIANORVM · QVI
 FERVIDI · ADVLESCENTES
 SEV · PLENIORE · VIRI
 CONSIILIO · VT · INTEGRA
 MANERET · RES · PVBLICA
 OPPETIVERVNT · MORTEM
 QVAE · MORIENTES
 CONSERVABANT · ILLI
 EA · TV · COLITO · DVM
 VIVIS · VT · HOMINES
 APVD · NOS · MAGIS · SINT
 LIBERI · BEATI · CONCORDES

Translation : Greeting, whoe’er thou art. Thou see’st the names of the men of Harvard who in ardent youth or manhood’s riper resolution laid down their lives that the Republic might live. Pattern thy life by the principles they maintained in death, to make men freer, happier, and more united.

At the bottom of the window : —

MARTINVS · BRIMMER · ALVMNVS · SOCIVS · DONVM · DEDIT,
 that is, The gift of Martin Brimmer, Alumnus and Fellow.
 The two dates, 1829 and 1896, are those of the birth and death of Mr. Brimmer.

In the north window are the names of the Virtues.

From the transept two doorways lead to the floor of Sanders Theatre, and two stairways to the balcony and the gallery. The Theatre is polygonal; the stage is at the west end, and the seats rise towards the eastern walls. The seating capacity is about 1300. Above the stage is a canopy, serving as a sounding board, and a small gallery for musicians. The inscription on the wall above the gallery is as follows : —

HIC · IN · SILVESTREBVS
 ET · INCVLTVS · LOCIS
 ANGLI · DOMO · PROFVGI
 ANNO · POST · CHRISTVM · NATVM · CIO · IO · C · XXXVI
 POST · COLONIAM · HVC · DEDVCTAM · VI
 SAPIENTIAM · RATI · ANTE · OMNIA · COLENDAM
 SCHOLAM · PVLICE · CONDIDERVNT
 CONDITAM · CHRISTO · ET · ECCLESIAE · DICAVERVNT
 QVAE · AVCTA · IOHANNIS · HARVARD · MVNIFICENTIA
 A · LITTERARVM · FAVTORIBVS · CVM · NOSTRATIBVS · TVM · EXTERNIS
 IDENTIDEM · ADIVTA
 ALVMNORVM · DENIQVE · FIDEI · COMMISSA
 AB · EXIGVIS · PERDVCTA · INITIIS · AD · MAIORA · RERV · INCREMENTA
 PRAESIDVM · SOCIORVM · INSPECTORVM · SENATVS · ACADEMICI
 CONSILII · ET · PRVDENTIA · ET · CVRA
 OPTVMAS · ARTES · VIRTUTES · PVBLICAS · PRIVATAS
 COLVIT · COLIT

QVI · AVTEM · DOCTI · FVERINT · FVLGEBVNT · QVASI · SPLENDOR · FIRMAMENTI
 ET · QVI · AD · IVSTITIAM · ERVDIVNT · MVLTOS
 QVASI · STELLAE · IN · PERPETVAS · AETERNITATES

Translation : —

Here in the woods and wilds
Englishmen, fugitives from home,
in the year of our Lord 1636,
the sixth after the settlement of the Colony,
holding that the first thing to cultivate was wisdom,
founded a College by public enactment
and dedicated it to Christ and his Church.
Upraised by the generosity of John Harvard,
aided again and again by patrons of learning both
here and abroad,
entrusted finally to the charge of its alumni,
from small beginnings guided to a growth of greater powers
by the judgment, foresight, and care
of its Presidents, Fellows, Overseers, and Faculties,
it has ever cultivated the liberal arts and public and
private virtues,
and cultivates them still.

The rest of the inscription is from the Vulgate translation of the book of Daniel, 12, 3 : “ And they that be wise shall shine as the brightness of the firmament ; and they that turn many to righteousness as the stars for ever and ever.”

In the panel at the north side of the gallery is the donor's inscription : —

CAROLVS · SANDERS
A · B · ANNI · CIO · IO · CCC · II
THEATRVM
ALVMNIS · ACADEMICIS
SVA · PEC · F

In the south panel is the date : —

AEDIFICATVM · ANNO · POST · CHR · NAT

CLD · ID · CCC · DLXXVI

POST · POP · AMER · LIBERATVM

C

The marble statue of President Quincy, by William Wetmore Story, of the Class of 1838, is the only piece of statuary in the Theatre. On the basement floor there are large dressing rooms.

The Felton memorial window, the central window above the gallery, was provided for by the bequest of Miss Mary F. Felton, and commemorates Cornelius Conway Felton, Professor of Greek, 1832–1860, and President from 1860 to 1862. It was designed by John La Farge, and presented to the College in 1898.

The dining hall, which occupies the long western portion of the building, is entered from the centre of the transept. Another door, at the north end of the transept, leads into the Auditor's office; thence a stairway leads to a gallery overlooking the dining hall. From this gallery one can pass into rooms set apart for the various administrative offices, into a gallery overlooking the transept, and by a stairway into the tower.

The dining hall is 149 feet long, 60 feet wide, and, to the ridge, 66 feet high. The addition on the north side of the dining hall was completed in the summer of 1905, and contains all the serving appliances. Up to this time, the serving room occupied a large space on the main floor of the hall. By its removal it was made possible to seat many more students than before. There are 850 seats in the hall, and, by assigning to each table more men than

can be seated at one time, as many as 1,320 persons can be easily accommodated. Beneath the new addition are the stoves and soup kettles, and beneath the main hall are the general store-rooms, refrigerating plant, steward's office, and dining rooms for the waiters. Everything pertaining to the operation of the building, including the manufacture of ice and electricity, is provided within the walls. Those who take their meals here constitute the Harvard Dining Association, and through a board of directors, chosen by the members, administer, under certain regulations of the President and Fellows, the affairs of the Association.

Inside the hall are busts and portraits of alumni and benefactors, each marked with the name of the subject and the artist. The great western window shows the armorial bearings of the nation, the state, and the University. The stained glass windows on the north and the south are all memorial windows, most of them given by college classes. Beginning on the left as one enters, the figures in the windows and the inscriptions are as follows:—

1. Window of the Class of 1866; by Sarah Wyman Whitman, designer of the great south window in the transept. Figures on the left representing Honor, on the right representing Peace, inscribed below HONOR and PAX, respectively.

2. Window of the Class of 1859; by John La Farge. Subject: Cornelia, mother of the Gracchi, showing her sons to her sister, who is playing with her jewelry. Inscription: CORNELIA · MATER · GRACCHORVM. Then follow Cornelia's famous words: HAEC · ORNAMENTA · MEA · SVNT — “These are *my* jewels.”

3. Davis Memorial Window ; by Henry Holliday ; given by the Davis family. Figures : Columbus and Blake. Inscriptions : At the top : Port Royal — Memphis — Fort Pillow. In the left-hand window : Columbus, born 1442, died 1506. In the right-hand window : Blake, born 1599, died 1657. The memorial inscription proper, occupying the lower part of both windows, is as follows : —

MEMORIÆ · CAROLI · HENRICI · DAVIS · PREF · NAV · VIRI
 BELLI · ET · PACIS · ARTIBVS · PRÆSTANTIS · NATVS · EST
 A · D · XVII · K · FEB · A · CIO · IO · CCC · VII · MORTVVS
 A · D · XII · K · MART · A · CIO · IO · CCC · LXX · VII · ALVMNVS
 A · CIO · IO · CCC · XXV · LL · D · CIO · IO · CCC · LX · VIII · PER
 LV · ANNOS · SINGVLAREM · FIDEM · PRVDENTIAM · VIRTVTEM
 AD · REIPVBLICÆ · VTILITATEM · ET · SALVTEM · CONTVLIT
 HVIC · OB · REM · BENE · NAVIBVS · GESTAM · GRATISSIMIS
 VERBIS · GRATIAS · EGIT · SENATVS · POPVLVSQVE · AMERICANVS

Translation : To the memory of Charles Henry Davis, Rear Admiral in the Navy, eminent in the arts of war and of peace. He was born January 16, 1807 ; died February 18, 1877 ; A.B. 1825 ; LL.D. 1868. During fifty-five years he served and safeguarded the Republic with singular loyalty, foresight, and valor. He received the grateful thanks of Congress and the American people for his distinguished service in our fleets.

4. Window of the Class of 1844 ; by Henry Holliday. Figures : Dante and Chaucer. Inscriptions : Dante, born 1265, died 1321. Chaucer, born 1328, died 1400. Below : MEMORIAE · EORVM · QVI · HIS · EX · SEDIBVS · A · M · D · CCC · XL · III · EGRESSI · DE · CONLEGIO · CONDISCIPVLISQ^{ue} · BENE · SVNT · MERITI · SODALES · POSVERVNT

Translation : Erected by their classmates to the memory of the members of the Class of 1844 who have earned the gratitude of the College and of their fellow students.

5. Window of the Class of 1857; by Cottier & Co., London. Subjects: Sir Philip Sidney, and, below, the battle field of Zutphen; Epaminondas, and, below, a mother giving her son a shield. Inscription: In Memory of those Classmates who fell in the War. Erected A.D. 1879.

6. Window of the Class of 1860; by John La Farge. Subject: A battle scene. Inscription: IN MEMORIAM MDCCCLX.

7. Window of the Class of 1877; by W. J. McPherson. Figures: Charlemagne and Sir Thomas More.

8. Window of the Class of 1854; by Frederic Crowninshield, of the Class of 1868. Figures: Sophocles and Shakspeare. Inscription under the figure of Shakspeare: "Had I a dozen sons, I had rather I had eleven die nobly for their country than one voluptuously surfeit out of action." From *Coriolanus*, II, 3. Below: In memory of our classmates who fell in defence of the Union.

9. This window is yet unfilled.

Crossing to the north side of the hall and beginning at the west end:

1. Window of the Class of 1875; by C. E. Mills. Figures: La Salle and Marquette.

2. Window of the Class of 1855; by the Church Glass and Decorating Company of New York. Figures: Bernard of Clairvaux and Godfrey of Bouillon. Below: FIDES · SPES · CARITAS · FORTITUDO.

The window is erected in memory of Phillips Brooks, '55, and General Francis Channing Barlow, '55, and their faces are given to the figures of Bernard and Godfrey, respectively.

3. Window of the Class of 1861 ; by Frank D. Millet, of the Class of 1869. Figures : The Student and the Soldier. Below the Student, a college lecture room ; below the Soldier, a battle field. Inscription : A · LITTERIS · LAETI · PRO · PATRIA · AD · ARMA. Translation : With light hearts from letters to arms for our country.

4. Window of the Class of 1858 ; by Cottier & Co. Figures : John Hampden and Leonidas. Inscriptions : under Hampden : "Died for the cause of civilization and law, and the self-restrained freedom which is their result." [From a letter of James Jackson Lowell, of this Class, written from the field to some of his classmates. He was mortally wounded in the battle of Glendale, June 30, 1862.] Under Leonidas : "As for the chances of life or death, neither is welcome without honour or duty, either is welcome in the path of honour and duty." [From a letter of Henry Lyman Patten, of this Class, to his mother. Five times wounded in battle, he died from the effects of his last wound, September 10, 1864.] Below : Erected Anno Domini 1882.

5. Window of the Class of 1863 ; by Frederic Crowninshield. Figures : Andromache and Hector.

6. Window of the Class of 1880 ; by John La Farge. Figures : Virgil and Homer.

7. Window of the Class of 1879 ; by Frederic Crowninshield. Figures : Pericles and Leonardo da Vinci. Inscriptions : under Pericles, from his speech in Thucydides, 2, 63 : τῆς τε πόλεως ὑμᾶς εἰκὸς τῇ τιμωμένῳ ἀπὸ τοῦ ἀρχειν, ᾧ περ ἅπαντες ἀγάλλεσθε, βοηθεῖν. Translation : You are bound to support our country in the dignity of her government, in which you all take pride. Under Leonardo, from his *Trattato*, book 2 : Il tesoro per se

non lauda il suo cumulatore dopo la sua vita come fa la scienza, la quale sempre e testimonia e tromba del suo creatore. Translation (from a Class Report): "Riches in themselves bring no glory to their possessor at his death, as knowledge does, which is an everlasting witness and herald to its creator."

8. Window of the Class of 1878; by F. D. Millet. Figures: General Warren, and, below, the Committee on the Suffolk Resolves. John Eliot, and, below, Eliot preaching to the Indians.

9. Window of the Class of 1874; by Edward Emerson Simmons, of the Class of 1874. Figures: Themistocles and Aristides, typifying the reconciliation of the North with the South. Inscription, from Herodotus, 8, 79: *ὡς δὲ ἐξῆλθέ οἱ Θεμιστοκλῆς, ἔλεγε Ἀριστείδης τάδε· ἡμέας στασιάζειν χρέων ἐστὶ ἐν τε τῇ ἄλλῃ καὶ δὴ καὶ ἐν τῷδε περὶ τοῦ ὀκότερος ἡμέων πλέω ἀγαθὰ τὴν πατρίδα ἐργάσεται.* Translation: And when Themistocles came out to him, Aristides said: At all times and chiefly now this should be our rivalry — which of us shall do most good to our country.

The John Harvard Statue in the Delta, west of Memorial Hall, was designed by Mr. Daniel C. French. It was the gift of Samuel James Bridge, and was erected in 1884.

Randall Hall, at the corner of Kirkland Street and Divinity Avenue, was built in 1898-99, partly to accommodate the overflow of students unable to obtain board at Memorial Hall, but also with a design to furnish cheaper board than is offered by the Memorial Hall Dining Association. Of the \$100,000 which Randall Hall cost,



STATUE OF JOHN HARVARD
erected 1828

\$70,000 was given by the trustees of the estate of John Witt Randall and Belinda L. Randall, who had left a fortune to be devoted to charitable enterprises; the balance was borrowed from the Corporation.

The dining room is large enough to contain 44 tables, seating 528 persons at the same time; but a larger number is accommodated. In the main building there are also an auditor's office, a dressing room for student waiters, and, in the basement, toilet rooms, a laundry, a heating, lighting, and refrigerating plant. A musicians' gallery overlooks the dining room. An extension to the north of the main building contains the kitchen, pastry kitchen, scullery, vegetable room, etc. The architects were Wheelwright and Haven, of Boston.

The New Lecture Hall, at the corner of Oxford and Kirkland streets, was given in 1901 by donors who wished their names withheld, and was first occupied in 1902-03. The building covers a space 94 by 72 feet, and cost about \$100,000. The architect was Mr. Guy Lowell, '92, of Boston. With the exception of the basement, the interior is a large auditorium with a seating capacity of one thousand: seven hundred on the floor, and three hundred in the gallery. In the basement are seven recitation rooms, besides the heating, ventilating, and operating plants.

Foxcroft House, the frame building on Oxford street, just north of the new Lecture hall at the corner of Kirkland street, is now used as a dormitory and contains sixteen suites. It formerly stood on the corner lot and is named for an old Cambridge family whose homestead was on this site.

Lawrence Hall, situated on Kirkland Street, north of Holworthy, was built in 1848 with a part of a gift of \$50,000 made in 1847 by Hon. Abbott Lawrence, of Boston, for the benefit of the Scientific School, which had been established shortly before in Harvard University. The building was, at first, devoted to the chemical laboratories, library, etc., of Professor Horsford, who was the first professor chosen for the Scientific School. In 1853, rooms in this hall were assigned to Professor Eustis for the courses in engineering. Since 1849, Professor Eustis had shared with Professor Agassiz a square wooden building erected for their joint use on the site now occupied by the Hemenway Gymnasium. In 1871, Professor Eustis occupied the whole of the second and third floors of Lawrence Hall; and from that time until October, 1901, these rooms were the centre of the work in engineering.

Lawrence Hall was designed as the east wing of a much larger structure to be built for the Scientific School. There was to be a central hall running east and west, with a west wing, a counterpart of the present hall.

The east wing of Lawrence Hall was built as a residence for Professor Horsford, the entrance to the main building being then at the south end. This wing was later devoted to purposes of instruction. It was given over about 1893 to a *Laboratory for the Courses in Anatomy, Physiology, and Hygiene*.

The laboratory on the first floor is devoted to instruction in human physiology and hygiene and to the investigation of problems in hygiene and the physiology of exercise. One end of the room is fitted up as a workshop, with screw-cutting lathe, and the necessary metal- and wood-



THE NEW LECTURE HALL



THE HEMENWAY GYMNASIUM

working tools for the construction of apparatus. The laboratory contains a collection of physiological apparatus and appliances for hygienic investigation, and apparatus and reagents for physiological and hygienic chemistry; there is, also, a collection of about a thousand photographs and lantern slides, together with charts, maps, and specimens.

The north wing of Lawrence Hall was erected in 1892 with a gift of \$10,000 from Mrs. Benjamin Rotch. It was built as a laboratory for the courses in electrical engineering; and was so used until these courses were transferred in October, 1901, to Pierce Hall.

At present, the Department of Education occupies the second floor of Lawrence Hall, with its lecture rooms, professors' rooms, and library. The physiological laboratory remains on the first floor of the east wing; and the remaining rooms are devoted to the general purposes of University instruction.

The Hemenway Gymnasium, built and equipped in 1878, was given by Augustus Hemenway, of Boston, of the Class of 1875. When, on account of the increased number of students in the University, the old Gymnasium failed to meet completely the needs of the students, Mr. Hemenway, in 1895, made an extensive addition to the building, increasing the floor area to 15,000 square feet. The main hall on the first floor is equipped with light and heavy gymnastic apparatus and modern developing appliances. A gallery surrounding the hall is fitted as a running track. On the second floor is a rowing room, the Director's office, and rooms for measuring, photographing, etc. The staircase hall is hung with

portraits of athletes. In the basement are bowling alleys, hand-ball courts, and rooms for fencing, sparring, wrestling, and other exercises. In the east end of the building are the locker, the bathing, and the dressing rooms, accommodating 2500 students. In the rear is an area covered with asphalt. This is enclosed by a high fence, and affords facilities for hand-ball and other gymnastic games and exercises.

The Jefferson Physical Laboratory.—In 1881, Thomas Jefferson Coolidge, of Boston, of the Class of 1850, gave \$115,000 to the College for a new physical laboratory, on condition that \$75,000 should be raised by subscription and the income appropriated to its support.* The building was finished in October, 1884, and was named the Jefferson Physical Laboratory. All the instruction in physics, to students of Harvard College, of the Lawrence Scientific School, and of the Graduate Schools, by recitations, lectures, and experimental work, is given in this building, which accommodates the various physical cabinets. The building is 200 feet long and, including the basement, four stories high. In the eastern wing, the whole height is divided between a large lecture-room below, capable of holding 400 students, and the great laboratory above. In the central and western portions of the building are three recitation rooms for sections of forty or less; but the principal part of the central and western portions is broken up into a large number of small rooms, where professors, assistants, and advanced students can pursue their separate investi-

* In 1902, Mr. Coolidge further gave a fund of \$60,000, the income to be used for original research.

gations, and be secured against intrusion, or any disturbance of their instruments. In the basement and the first story, stone tables, each supported by a pier which is separated by air spaces from the floors, furnish stable foundations for delicate instruments. Instruments, moreover, can be placed on the walls of a large rectangular tower standing on an independent foundation. This tower rises inside the building and is separated from the main walls of it by a large air space. It does not extend to the roof, and is therefore free from disturbances produced by the movements inside the building and from possible vibrations resulting from gusts of wind.

This tower constitutes a pier of large section, nearly 60 feet in height, and more or less stable positions for instruments can therefore be obtained on each story. It is designed for investigations which demand a great height, the different floors opening to each other by trap doors. Small openings have been left in the brick partitions which divide the length of the building: by means of these a long path is available for experiments in which this arrangement may be necessary. In the western wing, iron nails and pipes, which would disturb delicate experiments in magnetism, were excluded in the construction of the building. All steam pipes here are made of brass, and copper nails are used in the flooring. In the bottom of the tower is a small underground room which may be used for experiments requiring a constant temperature.

A room is devoted to apparatus designed for the more accurate standard measurements.

The photographic room is on the fourth floor: adjoining this is a large room especially arranged for spectrum analysis. There are four principal laboratories. One of

these, 60 feet square, is devoted to elementary laboratory instruction. The laboratories for instruction in static and steady current electricity and in optics are on the second and third floors. The laboratory for work in magnetism and alternating currents is in the basement. On the ground floor is a machine shop, a glass blower's room, and carpenters' quarters, for the making of apparatus to be used in research. All are in charge of skilled workmen.

The Rotch Building (formerly the Carey Building), erected in 1890-91 at a cost of \$38,000, was the gift of Henry Reginald Astor Carey. When, in 1898, athletic sports were transferred to Soldier's Field, this building was devoted to other uses of the University. The name Carey was then given to the base-ball cage on Soldier's Field, and the President and Fellows placed thereon a tablet commemorating the gift of Mr. Carey. The building is now named in honor of the benefactors whom the following tablet in the building commemorates:—

IN MEMORY OF
ANNIE BIGELOW ROTCH
AND HER CHILDREN
EDITH ROTCH ARTHUR ROTCH
BENEFACTORS

Miss Rotch in 1898 left \$5,000 to the Lawrence Scientific School, and this sum was assigned to the Department of Mining and Metallurgy.

The building is occupied by the Department of Mining and Metallurgy, and contains a lecture room, a library, a reading and exhibition room, and the following laboratories:—



THE JEFFERSON PHYSICAL LABORATORY



ROTCH BUILDING

The Laboratory of Metallurgical Chemistry is called the Storrow Laboratory, Mr. James J. Storrow, of the Class of 1885, having given, in the summer of 1901, \$3,000 for the equipment. It occupies the west wing of the building. The main room is 60 feet long by 30 feet wide. Adjoining are smaller rooms for the instructor and for balances and storage. The equipment of the laboratory is designed for general metallurgical analysis, which demands much hood space, facilities for rapid evaporation and filtration, and good ventilation and light.

The Simpkins Ore-Dressing Laboratory was fitted up with money given in 1900 by the family of John Simpkins, of the Class of 1885, as a memorial to him. The sum was later increased to \$26,600. In the laboratory is a bronze tablet, inscribed as follows:—

IN MEMORY OF
JOHN SIMPKINS
A.B. 1885

The laboratory is provided with modern machines of full size for the crushing, amalgamation, and concentration of ores. The machines, which are driven by three fifteen-horse-power electric motors, are so arranged that they may be operated singly or in almost any desired combination for experimental work.

The Simpkins Assay Laboratory, in the east wing of the building, is equipped with nine two-muffle soft coal furnaces, a melting furnace, a power sample-grinder, and all the apparatus necessary for assaying.

The Simpkins Metallurgical Laboratory, also in the east wing, is equipped with furnaces and accessories for the treatment of iron and steel, and for the melting and

making of alloys. It has also a reverberatory furnace for sulphide metallurgy and a cupola furnace. Heat work, the measurement of high temperatures, and the preparation of samples for analysis and of metallic specimens for optical investigation are carried on in this room.

The Laboratory of Metallography at present occupies the old Infirmary building on Holmes field, a short distance east of the Rotch Building. It contains microscopes and accessories for the examination of metals and other opaque objects.

All heat treatment, pyrometric work, physical testing, polishing, etc., required in metallographic work are carried on in the Simpkins Metallurgical Laboratory.

The building now situated west of the Rotch Building, and used by the *Astronomical Department*, has a variety of interesting associations. It has successively cradled the Museum, under Professor Agassiz, the Engineering Department, under Professor Eustis, and the Department of Architecture, under Professor Warren, each of which now occupies far more spacious quarters. It has been moved four times. From the present site of the Hemenway Gymnasium, where it was originally located, it was moved to Divinity Avenue, near the present site of the Peabody Museum, where it was used as a dormitory; and from there it was moved over to Holmes Field, where the Hasty Pudding Club occupied it. The other two removals were for short distances, and were occasioned by the erection of the Rotch Building and by other changes on Holmes Field.

Pierce Hall, occupied by the Departments of Civil, Mechanical, and Electrical Engineering, was built in



PIERCE HALL



WALTER HASTINGS HALL

1901 at a cost of \$175,000, this sum being appropriated for this purpose by the Corporation from the great residuary bequest of Henry L. Pierce, after whom the hall is named.

The building is of brick, with limestone trimmings. The inside is not plastered, but is finished in brick, with oil paints in all rooms where machinery is used, and cold water paints in the lecture rooms, draughting rooms, and offices.

The building is planned to give a maximum amount of light and air to every room. There are two large wings and a central structure, connected by stair halls, and containing lecture rooms, small draughting rooms, and offices. There are four floors, a basement, and an attic; and the floor surface available for all purposes is over 63,000 feet.

The draughting rooms are located on the top floor, the two larger rooms being used mainly for the first-year elementary drawing and the second-year instruction in descriptive geometry and graphical statics. The advance work in designing is carried on in three smaller rooms, where blue prints and books of reference can be kept.

The central structure contains four recitation rooms on the top floor, each with a capacity of thirty students. On the second floor, in the centre, is a lecture room for one hundred and twenty students, and a library containing about 7,000 volumes. On the lower floor is a lecture room for three hundred students.

The laboratories are mainly confined to the two wings. The south wing contains the machinery and apparatus for electrical engineering, and for testing materials of construction. The north wing contains all the other machines

for research and experimental work. Several small rooms are provided for special work by the instructors and advanced students.

Walter Hastings Hall, on Massachusetts Avenue, the gift of Mr. Walter Hastings, of Boston, whose ancestors in direct line for three generations were alumni of the University, was built in 1888-90 at a cost of about \$243,000. It contains 60 suites of rooms and a common room for the general use of those who live in the building, a large proportion of whom are Law students.

Gannett House, the frame building south of Walter Hastings, contains nine suites. It is named after a family whose connection with Harvard was serviceable and honorable. The house of Caleb Gannett, Steward of the College from 1779 to 1818, stood on the present site of the Law School.

Conant Hall, built from funds bequeathed by Edwin Conant, of Worcester, of the Class of 1829, was erected in 1893-95 at a cost of about \$109,000. It contains 43 suites of rooms, and three single rooms. Mr. Conant also gave \$5,000 to the Divinity School and \$27,500 to the College Library. Since 1906 Graduate students have been given preference in the assignment of rooms. A large common room has been provided and the building has become a centre, socially, for the Graduate Schools.

Perkins Hall, the gift of Mrs. Catharine P. Perkins, of Boston, was built in 1893-95 at a cost of about \$160,000. It was erected in memory of three members



CONANT HALL



PERKINS HALL

of her husband's family, the Reverend Daniel Perkins, Richard Perkins, and William Foster Perkins, all alumni of the University. It contains 86 suites of rooms and a common room.

THE UNIVERSITY MUSEUM

This establishment is commonly called the Agassiz Museum, and the latter title is hardly more than a just recognition of the share which Louis and Alexander Agassiz, father and son, have had in its upbuilding.

The University Museum comprehends the Museum of Comparative Zoölogy, the Botanical Museum, the Mineralogical Museum, the Geological Museum, the Peabody Museum of American Archaeology and Ethnology, and the Natural History Laboratories.

The Museum of Comparative Zoölogy, constructed in 1859-88, occupies the north wing of the quadrangle (60 by 200 feet) and the adjoining part of the west wing (30 by 60 feet). The zoölogical laboratories are in the northwest corner section.

The Botanical and Mineralogical Museums, built in 1888-89, occupy the central section. The Geological Museum, erected in 1901 as a gift from the children of Louis Agassiz, occupies the southwest corner, and contains large lecture rooms and laboratories for the Departments of Geology and Geography. Its exhibition rooms will connect the Oxford Street side of the Museum with the Peabody Museum, which, when completed, will form the south wing of the University Museum building.

The entrances to the Museum of Comparative Zoölogy and the Peabody Museum are from Divinity Avenue. The

Natural History Laboratories and the Botanical, Mineralogical, and Geological Museums are entered from Oxford Street. One may pass from the Zoölogical to the Botanical Museum or vice versa on the third floor.

In general, the Museums are open as follows : —

The Museum of Comparative Zoölogy and the Botanical Museum are open every week-day from 9 A.M. till 5 P.M., and on Sunday from 1 P.M. till 5 P.M.

The Mineralogical Museum is open Thursdays and Sundays from 1 P.M. till 5 P.M., and Saturdays from 9 A.M. till 5 P.M.

The Geological Museum is open Thursday and Sunday afternoons from 1 till 5, and on Saturdays from 9 A.M. till 5 P.M.

The Peabody Museum is open from 9 A.M. till 5 P.M. daily; Sundays and holidays excepted.

The Museum of Comparative Zoölogy.—

Louis Agassiz, when he was first appointed to a professorship in the University in 1847, had already made considerable collections of zoölogical specimens, and the need of housing them soon became apparent. In 1858, Francis Calley Gray, of Boston, of the Class of 1809, left \$50,000 for a "Museum of Comparative Zoölogy," giving his nephew, William Gray, Class of 1829, the option of bestowing the fund upon Harvard University. He gave it to the University, and it was supplemented by \$100,000 voted by the Legislature, and by \$71,000 subscribed by private citizens of Boston. Mr. Henry Greenough, of Cambridge, and Mr. George Snell, of Boston, volunteered to make a plan for the museum building, and produced a design large enough to meet



THE UNIVERSITY MUSEUM

all demands for space for a long time. There was to be a main building parallel to Oxford Street with two wings extending towards Divinity Avenue. At first, only about two-fifths of one of the wings was erected; this was completed in 1860. Professor Agassiz himself dug the first spadeful of earth. In 1868, the Massachusetts Legislature voted \$25,000 a year for three years, on condition that as much more should be raised from private sources. This was done, and in 1871-72 the capacity of the building was more than doubled. In 1876 the property in the hands of the Trustees was transferred to the President and Fellows of Harvard College. In 1877, the north wing was completed; in 1880-82, the northwest corner of the main building, which now contains a part of the library, rooms devoted to research collections, and to collections open to the public, and the laboratories of zoölogy, was erected by Alexander Agassiz, of the Class of 1855, in memory of his father. A slate tablet in the hall bears this inscription:—

LVDOVICI ·

AGASSIZ ·

PATRI · FILIUS ·

ALEXANDER ·

MD · CCC · LXXX ·

Louis Agassiz was Curator of the Museum from 1859 until his death in 1873. Alexander Agassiz entered the service of the Museum in 1860, and was Curator from 1874 until he resigned in 1898, never accepting any salary while he held that office. Besides his devoted service, he has given great sums of money to the institution.

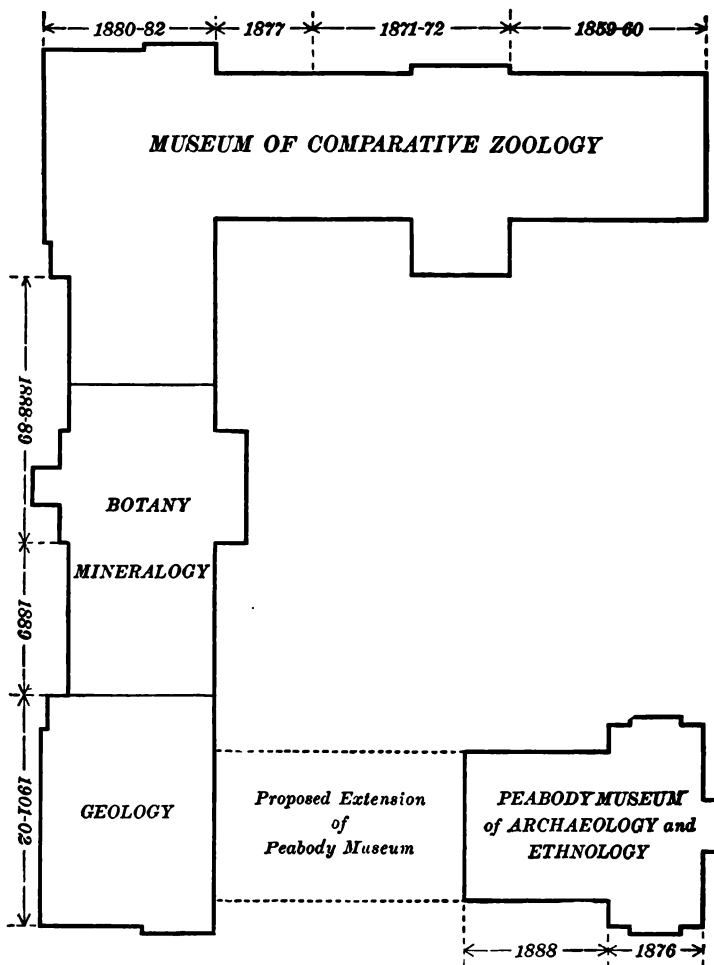
The Museum benefits largely from the Memorial Fund, part of which was raised by school children throughout the country whose interest in natural history had been awakened by the labors of Agassiz.

The Museum is under the management of a Faculty, who nominate the Curator and the Sturgis-Hooper Professor, and appoint the Assistants. The Curator is charged with the direction of the scientific and educational interests of the Museum, as well as of its relations to the public. The research collections, in charge of assistants, are available to properly qualified investigators.

The Exhibition Rooms open to the public are the Synoptic Room, the rooms containing the various systematic collections, those devoted to the various faunal collections (Europeo-Siberia, North and South America, Indo-Asia, Africa, Australia, and the Atlantic and Pacific Oceans), and also the rooms devoted to special collections, and to the Quaternary, Tertiary, Mesozoic, and Palaeozoic faunae.

These collections are open, Christmas and Fourth of July excepted, every week-day from 9 A.M. till 5 P.M., and on Sunday from 1 P.M. till 5 P.M. The entrance is on the south side of the north wing.

The publications of the Museum consist of an annual Report (1861-1906), of an octavo Bulletin (vols. i.-l.), and of Memoirs in quarto (vols. i.-xxxiii.). The Bulletin and Memoirs are devoted to the publication of original work by the officers of the Museum, of investigations carried on by professors, students, and others in the different laboratories of Natural History, and of work



PLAN OF THE UNIVERSITY MUSEUM

by specialists based on the Museum collections and explorations.

The Library of the Museum is on the second floor of the north wing and of the north end of the central section of the University Museum. It contains over 41,000 volumes, exclusive of a part of the Whitney Library, and of about 35,000 pamphlets. The Library is open daily, except Sunday, from 9 A.M. till 5 P.M.

The Laboratories and Lecture Rooms of Zoölogy and Palaeontology are in the northwest section of the Museum of Comparative Zoölogy, and may be reached from the steps in the northwest corner of the Museum quadrangle, off Divinity Avenue, or from the north entrance to the Museum on Oxford Street. The present quarters, which were first occupied in 1885, include rooms in the basement and on the first, fourth, and fifth floors of the Museum.

In the basement is a vivarium used for breeding animals, two dark rooms for photographic work and light experiments, an aquarium room containing a number of large stationary fresh-water and marine aquaria, floor-tanks, and other necessary appliances for the study of aquatic animals, and a work room for the construction and repair of apparatus.

On the first floor is the *Laboratory of Palaeontology*, containing collections, diagrams, and a few of the more important reference books required by students. The collection used in teaching general palaeontology is arranged systematically, and the collection used in teaching historical geology is arranged stratigraphically. They are contained in trays in table- or wall-cases. The whole

is freely accessible to students. Besides collections in the laboratory, students can consult the fossils on exhibition in the Museum, where they are arranged either in the systematic series or in rooms especially devoted to palaeontology.

The first floor also contains a large lecture room seating about three hundred, and a large laboratory for the elementary courses in zoölogy. For the present, one of the rooms on this floor is used for advanced zoölogical work.

On the fourth floor are laboratories for comparative anatomy, histology, embryology, and experimental work. These laboratories are provided with appliances for the injection and preservation of anatomical materials, with paraffin baths heated by electricity, microtomes, microscopes, and other apparatus necessary for zoölogical work. The lectures in the more advanced zoölogical work are given on this floor in a lecture room which is also the usual meeting place for the Zoölogical Club. Here, too, are the private rooms of the Director of the Laboratory and three other instructors.

On the fifth floor is a large, well-lighted laboratory for research students. Each research student is usually assigned a place here, though the nature of his work may require him to do much of it in other parts of the laboratories. The walls of this room are decorated with busts and portraits of distinguished zoölogists. A special laboratory for Radcliffe students is also on this floor. The Zoölogical Laboratories enjoy the unusual advantage of being in the same building with the exceptionally rich library and collections of the Museum of Comparative Zoölogy.

Botanical Museum and Laboratories of Cryptogamic, Phanerogamic, and Economic Botany.

—The Botanical Museum includes: The Gray Herbarium, at the Botanic Garden; and, at the University Museum, the Cryptogamic Herbarium, the Collection of Fossil Plants, the Economic Collection, and the Exhibition Collections. On week-days the Museum is open from 9 A.M. till 5 P.M. (or, in the winter, till an hour before sunset); on Sundays, from 1 till 5 P.M.

The collections on the first floor comprise representatives of the principal edible and poisonous fungi, fungi causing disease, and illustrations of the principal types of seaweeds, lichens, and mosses. The third floor of the central section is devoted to an exhibition of (1) types of fossil plants, ranging from the earliest to the latest forms, (2) specimens illustrating the useful products of plants, such as the principal foods, woods and fibres, gums, resins, and rubbers, and the medicinal species, (3) galls and other malformations of plants, (4) fruits, seeds, and the modes of dissemination, (5) models to display the morphological characters and affinities of the higher plants.

The latter collection is known as the Ware Collection of Blaschka Glass Models of Plants and Flowers. For this collection the University is indebted to Mrs. Charles Eliot Ware, and her daughter, Miss Mary Lee Ware; it was given in memory of Charles Eliot Ware, of the Class of 1834. These models are the artistic handiwork of Messrs. Leopold and Rudolph Blaschka, of Germany.

With the exception of certain of the axial supports constructed of wire, each model consists of some sort of glass. In some instances, the color of the glass has

been intensified or otherwise modified by the external application of mineral pigments which are unaffected by light. In cases in the gallery are displayed descriptions of the chief features of the method of construction, and, also, a few boxes which show how the fragile specimens are packed for transportation from the studio in Germany to this University. The total number of models received up to June, 1906, is about 700, and the number of details, such as the magnified parts, and the sections, exceeds 3,000.

The entire collection now installed is based on the study of living specimens. Most of these have been raised from seed in a garden attached to the studio, but many also have been obtained from botanical and other gardens in Europe. A large number of the studies are based on the results obtained by the son, Rudolph, during two journeys to North America.

In the hall at the head of the stairway, a few of these models exhibit some of the relations of plants to their surroundings: in the larger exhibition-room, others are arranged according to Engler and Prantl's System; in the long room at the left-hand side are models of some of the more important economic plants.

The Department of Botany of the University occupies the rooms in the basement, the central part, and the adjoining southwest wing of the Museum, except the rooms devoted to mineralogy and petrography. In the basement are store-rooms and rooms for photography. The Nash Botanical Lecture Room, built with the gift of Nathaniel Cushing Nash, of the Class of 1884, in memory of his father, is on the first floor. On the same floor are the exhibition cases of cryptogams and a laboratory of

economic botany. On the second floor, Room 10 contains the departmental library; Rooms 11 and 11A are the laboratories of vegetable physiology and histology; Rooms 12 and 13 are laboratories for elementary work. In addition to these there is a special room assigned to advanced students of physiological botany.

On the fourth floor, Room 19 is the private room of the Fisher Professor of Natural History; in Room 20 is a working collection of native and exotic phanerogams; Rooms 20A and 21A are used by students of economic botany. The rooms on the fifth floor are devoted to cryptogamic botany: Room 25 is used by the assistants; Rooms 26 and 26A contain the Cryptogamic Herbarium of the University, which includes collections of algae, fungi, and lichens; Room 27 is devoted to the use of special workers; Rooms 29 and 29A are laboratories for students of cryptogamic botany, the latter for advanced students; Room 29B is the laboratory of the assistants in cryptogamic botany; Room 29C and Room 30 are the private laboratories of the Professors of Cryptogamic Botany.

Mineralogical Museum and Laboratories of Mineralogy and Petrography. — The Mineralogical section of the University Museum, built in 1891 with a fund of \$50,000 raised by subscription, occupies a part of the central portion of the Oxford Street section of the Museum. The exhibition rooms, which are open Thursdays and Sundays from 9 A.M. till 5 P.M., occupy the whole of the third and fourth floors; the laboratories occupy the first floor and the west half of the basement and second floors.

History of the Mineralogical Collection. — Dr. Benjamin Waterhouse began the mineral collection (the oldest in the United States) in 1784, but in 1793 the real foundation of the present collection was laid by the gift from Dr. Lettsom, a London physician, of “a very valuable and extensive collection of minerals,” to which he subsequently made additions. The Corporation provided a cabinet and appointed Dr. Waterhouse keeper of the collection. In 1795, M. Mozard, consul in Boston of the French Republic, acting under a resolution of the committee of public safety of the National Convention of France, presented two hundred specimens “as samples of the riches of the French soil,” and solicited an interchange of specimens between the University and the “agency of the mines of the Republic.”

No important additions were made until 1820, when Dr. Andrew Richie purchased and presented the collection of C. A. Blöde, a mineralogist and chemist of Dresden, to which were added some thousand specimens purchased in 1824 by a subscription from several Boston gentlemen, and the collection was then arranged by Dr. J. W. Webster and exhibited in the second story of Harvard Hall, where it remained for thirty-three years. It increased slowly, and about 1840 contained 26,000 specimens, including rocks and other miscellaneous material. It owes its present value, both in quality and size, chiefly to the late Josiah P. Cooke, Erving Professor of Chemistry and Mineralogy from 1850 to 1894, a marble medallion of whom is placed in the Museum. Professor Cooke for nearly half a century gave his affectionate care to the collection. Starting with what was worth preserving of the old collection, he gradually

acquired new or better material by purchase, donations, or exchange, while several large single additions were made from time to time. On the completion of Boylston Hall in 1858 the mineral cabinet was placed there and it remained there until the erection of the present mineralogical museum.

The collections open to the public are situated on the main floor and gallery. Here in the flat cases the systematic collection of minerals is arranged in the numerical order of the cases according to Dana's System of Mineralogy (6th ed.), while large plans, hung on both floors, give the contents of each case. The larger specimens are placed in the wall-cases.

Only a few features of the systematic collection can be mentioned, such as the gold and silver case, the crystallized orpiment and other sulphides, and in the adjacent wall-cases the superb colored fluorites, stibnites, sulphur, etc. Many fine specimens of Alpine minerals (from the Lieben collection) will be found among the silicates and elsewhere, such as adularia, epidotes, titanite, apatite. The crystallized calcites from Lake Superior are noteworthy, and the great crystals and groups of quartz and its varieties in the wall-cases; as is also the framed collection of microphotographs of snow crystals, hung on the walls. Along the west wall there is a case containing a collection of natural crystals to illustrate crystallography. In the gallery the first rows of flat cases seen on entering contain a synoptic collection illustrating the general properties of minerals, including optical properties, cleavage, genesis, etc. The adjacent wall-cases contain large specimens of the systematic collection, including the sulphates and hydrous silicates. The remaining flat cases

contain the *Bigelow Collection of Agates* (about 450 specimens, mostly cut and polished, including thirty large thin sections), collected by Dr. Henry J. Bigelow and Dr. W. S. Bigelow, and illustrating the internal structure and process of growth; and the meteorites, which are arranged as far as possible in chronological order by date of fall and represent 291 separate falls. The cases against the south wall contain large specimens of the carbonates and sulphates, especially calcite and gypsum. Along the west edge of the gallery two cases contain the Hamlin collection of tourmalines, the largest in existence, from the famous locality at Mt. Mica, Paris, Maine, and a collection of gem minerals, including the well-known yellow diamond octahedron (83½ carats), precious opals, a large aquamarine and yellow beryl, tourmalines (many cut and mounted), a large hiddenite crystal, topaz, apatites, etc. The total number of mineral specimens in the exhibition rooms, exclusive of the meteorites, is about ten thousand, while those worth enumerating in the teaching and other collections bring the total up to twenty-three thousand.

The Laboratories of Mineralogy and Petrography include, in the basement, a chemical laboratory for mineral analysis and a workshop for preparing thin sections of rocks and minerals. The first floor contains the lecture room; the laboratory for determinative mineralogy; one smaller room used as the department library, with the principal periodicals, and another used for Radcliffe students in mineralogy. Many thousand specimens of rocks with thin sections are kept on this floor. The next floor has the advanced laboratory, equipped with goniometers and optical apparatus.

The Geological Museum. — (Entered through the exhibition rooms of the Mineralogical Museum.) This Museum contains at present the nucleus of a geological collection. The most noteworthy objects are the model of the Metropolitan District of Boston, by Curtis; a model geologically colored of the Dents du Midi by students of Heim, and a collection of metallic objects acted upon by the volcanic gases in the destruction of St. Pierre, Martinique. At present the Museum is open Thursday and Sunday afternoons from 1 to 5, and on Saturdays from 9 A.M. to 5 P.M.

The Laboratories of Geology and Geography (ordinarily open to visitors upon application) occupy three floors of the Museum building. The Geological Laboratory on the second floor is devoted to instruction in general geology. The room contains working collections of rocks, including sixty-four duplicate sets for large elementary classes, maps, charts, and a small reference library. An Advanced Laboratory on the uppermost floor of the Museum is arranged for the office work of students engaged in geological surveying.

The Laboratory of Geography, on the fourth floor of the geological section of the University Museum, is devoted to the needs of the various classes in physical geography, meteorology, and climatology, with special reference to laboratory exercises. The equipment of the laboratory has been planned with a view to furnishing material for individual study in geography, comparable to that afforded in zoölogy and botany in the other laboratories of the Museum. It includes a variety of maps, charts, models, diagrams, photographs, and lantern slides. Special men-

tion may be made of the collection of large-scale grouped map-sheets, illustrating districts of peculiar interest in this country and abroad. These are supplemented by a collection of the topographical maps of the United States governmental surveys and of nearly all the European surveys, in the College Library. The collection of models includes four of type forms by Heim, Pomba's Italy on a true curved surface, the Upper Moselle by the Geographical Service of the French Army, Southern New England by Howell, the Gulf of Mexico by the United States Hydrographic Office, as well as a series known as the "Harvard Geographical Models," designed with special reference to systematic instruction in secondary schools.

The material for instruction in meteorology and climatology includes the ordinary meteorological instruments; a full set of weather maps from the United States Signal Service and Weather Bureau; pilot charts of the North Atlantic and North Pacific Oceans; as well as a large number of meteorological charts and diagrams from different sources, and a number of official British, German, and French publications. The Laboratory Library contains about 500 volumes. A small but well equipped meteorological observatory, which provides facilities for practical instrumental work for students of meteorology and climatology, occupies the roof of the geological section of the University Museum.

The Peabody Museum was founded by George Peabody, a native of Massachusetts, who, in 1866, gave \$150,000 for the foundation of a museum and a professorship of American archaeology and ethnology in connection



THE PEABODY MUSEUM

with Harvard University. Mr. Peabody placed the fund in the charge of a board of trustees of which Robert Charles Winthrop, of the Class of 1828, was chairman until his death in 1894. The first Curator of the Museum was Jeffries Wyman, of the Class of 1833. After his death in 1874, Frederic Ward Putnam, s.b. 1862, was appointed his successor, and in 1886 Mr. Putnam was made Peabody Professor of American Archaeology and Ethnology. On January 1, 1897, the Trustees of the Museum transferred the property to the President and Fellows of Harvard College.

Mr. Peabody, by this gift, made the first foundation in this country for special research relating to the early or pre-Columbian history of America. Since then the Museum has been enriched from time to time by contributions of money and of specimens, and four small endowments have been received; also, two other endowments for a fellowship and a scholarship.

The arrangement of the collections is intended to facilitate research in general anthropology, with special reference to American and comparative archaeology and ethnology.

The building, 100 feet long and 5 stories high, is one half of the contemplated structure which will form the south wing of the University Museum. The entrance is on Divinity Avenue.

In the room on the left of the entrance is the general office and Anthropological Library. The library contains over 6000 volumes and pamphlets relating to all branches of anthropology. The regular publications of the Museum are Archaeological and Ethnological Papers and Memoirs. On the fifth floor is the students' laboratory and class room.

With the exception of the human crania and skeletons, on the fifth floor, the collections are so arranged that those from each limited region are brought together. The Mary Hemenway collection from Arizona occupies the large hall on the fifth floor and the gallery below. In the Warren Ethnological Gallery, on the fourth floor, are the Polynesian, Melanesian, Asiatic, and African collections. The collections from Mexico and Central America, including casts of large sculptures from the ruins of Copan and Quirigua, many original stone sculptures, pottery, ornaments, and other objects, secured by the Museum expeditions to Honduras, Guatemala, and Yucatan, are in the central hall and large room on the third floor. The exhibits from Peru and other parts of South America are also on this floor. In the north hall are exhibits from the Delaware and Little Miami Valleys; and from New York, New England, Newfoundland, and Canada. In the gallery below are the collections from the Southern States. In the south room on the second floor are the exhibits from the Swiss lakes, from the French caves, and from Denmark and other European localities. On the first floor to the right of the entrance is the room containing the collections from the mounds and earthworks of the Ohio Valley. In the large hall on this floor and in the gallery above are the North American Indian and Eskimo collections. This exhibit is especially rich in rare old specimens illustrating the life and customs and costumes of the tribes represented. It includes many fine old baskets in the several tribal exhibits. Models of habitations, maps showing localities, and photographs showing physical characteristics and customs, add interest and value to the exhibit.

The Museum is open to the public from 9 A.M. till 5 P.M. daily, Sundays and holidays excepted.

The Semitic Museum is on Divinity Avenue, nearly opposite the Peabody Museum. It is open on week-days from 9 A.M. till 5 P.M. The building, finished in 1902, is the gift of Jacob H. Schiff, Esq. The money for the purchase of most of the collections was given by various persons: \$10,000 by Mr. Schiff, in 1889; nearly \$20,000 by a number of friends, in 1899, and smaller amounts by others. Many friends have given individual objects or small collections of objects. The Harvard Divinity School has placed on deposit here a collection of Babylonian clay tablets, the gift of the late Honorable Stephen Salisbury. The Divinity School has also placed on deposit here a collection of Palestinian objects, gathered by the Reverend Doctor Selah Merrill, consul at Jerusalem, and purchased for the School by the contributions of many friends. A collection of Egyptian antiquities has been deposited by Rev. Dr. E. E. Hale. From 1890 till 1902, the Semitic collections occupied a room in the Peabody Museum. They were transferred to the Semitic Museum in the autumn of 1902, and the building was formally opened on February 5, 1903. The Museum contains three lecture rooms for the use of the Semitic Department, a Departmental Library of some 1200 volumes, a Curator's room, and two exhibition rooms, each about 80 by 50 feet. The Assyrian Room contains the material from Assyria, Babylonia, and the Hittite country; while the Palestinian Room contains objects from Palestine, Egypt, Moab, Arabia, Phoenicia, Syria, and Persia.

The objects already acquired are originals and reproductions. Of the former may be mentioned, from Babylon and Assyria, stone seal cylinders, and inscriptions on stone and on clay; from Phoenicia, glass vases, dishes, and bowls found in the tombs; from Palestine, the Merrill collection of birds, animals, plants, seeds, glass, coins, geological specimens, and numerous articles illustrating modern peasant and Bedouin life; from Egypt, three mummy-cases, many antiques (in bronze, stone, and wood), a number of photographs, and a collection of mortuary Moslem inscriptions in the Cufic character, some of them about 1000 years old; from various Semitic lands, many manuscripts, Arabic, Hebrew, and Aramaic.

The reproductions are largely plaster casts of important Assyrian and Babylonian monuments in the museums of London, Paris, and Berlin. These casts are from bas-reliefs, statues, obelisks, winged lions, clay tablets, seals, building bricks, commercial weights in the shape of lions and ducks, and numerous other small objects. There are also casts of Hebrew and Phoenician inscriptions, of a Phoenician sarcophagus, of Persian archers and inscriptions, of Hittite hunting scenes and inscriptions, and of the Moabite stone recording the revolt of Mesha from the Hebrews. There are, besides, many photographs of Semitic buildings and natural scenery, especially from Damascus, Palestine, and Spain.



DIVINITY HALL



THE DIVINITY LIBRARY

THE DIVINITY SCHOOL

That a leading purpose of the founders of Harvard College was to provide for the churches a learned ministry was shown in "New England's First Fruits," published in 1643.

Instruction in theology has been given at Harvard College from the time of its foundation. The first professorship instituted in the University was the Hollis Professorship of Divinity, established in 1721. The differentiation of the Divinity School from the College was very gradual. Its Faculty was formally organized in 1819. A separate list of its students — previously not distinguished from other "resident graduates" — first appears in the Catalogue for 1819-20. The organization of the three oldest professional departments of the University, under the titles Theological School, Medical School, and Law School, is first indicated in the Catalogue for 1827-28.

The constitution of the Divinity School prescribes that "every encouragement be given to the serious, impartial, and unbiassed investigation of Christian truth, and that no assent to the peculiarities of any denomination of Christians shall be required either of the instructors or students."

The administration of the School is carefully conformed to this principle. Various denominations are represented in its Faculty and among its students. The aim of its management is to maintain a school in which all subjects connected with theology shall be studied in a spirit as free as that in which philosophy, history, and classical

literature are studied in colleges. At the same time, special attention is given to preparation for the practical work of the ministry.

Divinity Hall, erected under the auspices of the Society for the Promotion of Theological Education in Harvard University, which secured contributions amounting to about \$20,000 towards this object, was completed in 1826. It contains 42 students' rooms, a common room for the use of all occupants of the Hall, and a Chapel.

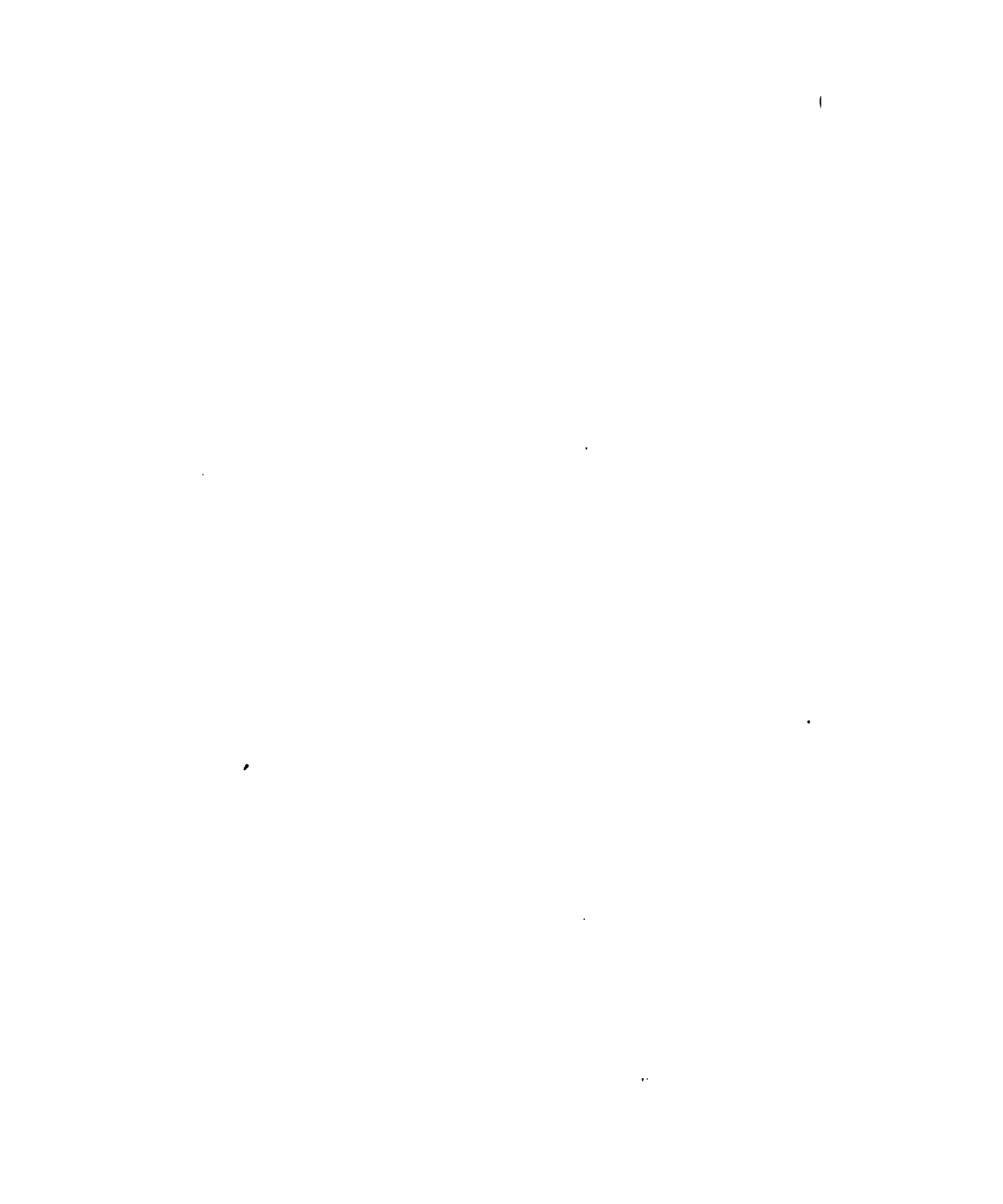
The Chapel has been lately renovated, and contains on its walls tablets of oak or marble commemorating Professor Frederick H. Hedge, Professor Joseph Henry Thayer, the Rev. Edmund H. Sears, Professor Henry Ware, Jr., and Professor Charles Carroll Everett, Dean of the School from 1878 to 1900. Another tablet recalls Ralph Waldo Emerson's epoch-making Divinity School address of 1838, which was delivered in this room.

The rooms are occupied by Divinity School students, and, with the permission of the Dean, by other graduate or professional students having some sympathy with the purpose of the School. The library formerly housed here has been removed to the Divinity Library Building.

The Library Building of the Divinity School was completed in 1887 at a cost of about \$40,000. It contains the library, of about 36,000 volumes, a reading room, a faculty room, the Librarian's office, and three lecture rooms.



AUSTIN HALL (THE LAW SCHOOL)



THE LAW SCHOOL

Austin Hall.—Dane Hall, in the southwest corner of the College Yard, erected in 1832 and enlarged in 1845, was occupied by the Law School until 1883, when Austin Hall, in Holmes Place, the present home of the School, was finished. For this building the University is indebted to the liberality of Edward Austin and the architectural skill of Henry Hobson Richardson.

On the first floor are three lecture rooms, a reading room, and three professors' rooms. The mezzanine story contains three more professors' rooms. On the second floor are the administrative offices, the library stack, with a capacity of 60,000 volumes, and the large reading room or workshop of the students. The library contains upwards of 90,000 volumes.

A new building, Langdell Hall, back of Austin Hall, is nearing completion (August, 1907). It will contain the principal part of the library of the School, with reading and lecture rooms adjacent.

The Law School possesses a unique collection of portraits of eminent judges and lawyers. The portraits of the Lord Chancellors, Vice-Chancellors, and Masters of the Rolls are to be seen in the north lecture room, and of English Common Law judges in the west lecture room. The portraits of American lawyers and judges are in the reading hall and in the east lecture room. In one of the upper rooms there is another collection made up of portraits of eminent lawyers and pictures of famous trial scenes.

THE BOTANIC GARDEN

The Botanic Garden, situated at the corner of Garden and Linnaean Streets, Cambridge, was established in 1807 by a number of public spirited gentlemen who endowed a professorship of Natural History. The committee in charge of the enterprise selected as the first incumbent of the chair William Andridge Peck, of the Class of 1782, and, with the understanding that special prominence should be given to Botany, despatched him to Europe to examine botanic gardens in England and on the continent, while they secured a plot of land for a garden here. In 1807, Professor Peck laid out a portion of the seven acres at the corner of what are now known as Garden and Linnaean Streets, following as a model the formal lines of the smaller establishments in England. This arrangement has not since been essentially changed in any manner. After Professor Peck's death, the garden passed under the charge of Thomas Nuttall, and later of Thaddeus William Harris, as Curators, the funds having dwindled so that it was no longer possible to assign the income to a full professorship. About 1842, the income of a newly established professorship, endowed by Joshua Fisher, of the Class of 1766, became available, and to this new chair Dr. Asa Gray was invited. The amount at Dr. Gray's disposal for the maintenance of the garden was inadequate, but it was supplemented by the expenditure of untiring energy. The garden was soon enriched by large numbers of native and foreign plants, and shortly became the recipient of the newer treasures coming from the West and the Southwest.

Dr. Gray was wont to place in nooks not easily accessible to the public the rarer plants which have since become the common property of horticulture, and in this way he introduced some of the choicest novelties.

In 1872, the garden was placed under the charge of Professor Charles Sprague Sargent, of the Class of 1862, now Director of the Arnold Arboretum. The distribution of species was changed, and many improvements which the poverty of the garden had hitherto forbidden were successfully introduced. The garden has been under the charge of the present Director, Professor George Lincoln Goodale, of the Class of 1863, Medical School, since 1886. Mr. Oakes Ames, of the Class of 1898, was made Assistant Director in 1898.

The garden is conveniently divided into the area below the terrace and that on the upper level. Below the terrace the natural orders of flowering plants and the genera of ferns and their allies are arranged in formal beds, which are so disposed as to exhibit many of the affinities of the families. In various places below the terrace are special beds devoted to groups of plants of particular interest. Among these are plants mentioned by Shakspeare and by Virgil. One long bed contains a large number of the species described by Parkinson as cultivated for decorative purposes at the beginning of the seventeenth century; these may fairly be said to represent the old-fashioned plants grown in "pleasure gardens" at the time the University was founded. Two groups which possess more than ordinary attractions for the casual visitor, the Australasian species and the desert plants, are near the Linnaean Street border.

On the upper level are the large plots assigned to select North American species. Near these are the cultivated forms of the rarer vegetables grown for the study of variation.

The greenhouses are of the common composite type. Beginning on the left and passing towards the east are successively the succulents, the Australian, and the Mexican houses, the fern house, the palm house and its attached hot-house filled with exotics demanding great heat. Behind this range is a long range largely devoted to economic plants and to plants under the hands of experimenters. This range has laboratories at its extreme western end.

The Botanical Laboratories of the University are distributed as follows: at the Botanic Garden are the Gray Herbarium and the Botanical Library, and the Laboratories of Vegetable Physiology. In the University Museum are the Laboratories of Cryptogamic, Phanerogamic, and Economic Botany. The garden and greenhouses are open to visitors from sunrise to sunset on Sundays as well as week-days.

The Gray Herbarium is situated in the Botanic Garden. The collection, founded and largely developed by the late Professor Asa Gray, was given by him to the University in 1864. At that time, the fireproof brick building which it now occupies was built for the Herbarium through the liberality of Nathaniel Thayer. The collection, being the result of more than sixty years of continuous and carefully directed growth, contains about 400,000 sheets of mounted specimens, including all groups of flowering plants, ferns, and fern-allies, and representing the floras

of all countries. The fungi, lichens, algae, mosses, and hepatics have now been wholly transferred to the Cryptogamic Herbarium in the Botanical Division of the University Museum. Among the many additions which have been made to the original collection of Professor Gray since it was given to the University, the following have been the most important: the herbaria of Jacques Gay, G. Curling Joad, and John Ball, all rich in Old World types; the herbarium of Dr. George Thurber, especially rich in critically identified grasses; the general herbarium of William Boott, notable for its excellent representation of the difficult genus *Carex*; the *Compositae* from the herbarium of Dr. F. W. Klatt, specialist in that family. The Herbarium is rich in standard and rare phaenogamic *exsiccati*, in type specimens of new species and varieties, and in the possession of the greater part of the plants which have been critically examined in the preparation of the "Synoptical Flora of North America." It also contains the largest set of the valuable collections secured by Cyrus G. Pringle during more than twenty seasons of field work in Mexico.

The excellent local collection of the New England Botanical Club is kept in one of the rooms of the Gray Herbarium.

The Library of the Herbarium.—Together with his herbarium, Professor Gray gave to Harvard University in 1864 his extensive collection of botanical books. This nucleus of the library was soon increased by some rare and valuable floras, contributed by John A. Lowell. Augmented also by lesser gifts and by purchases, the library now contains more than 17,000 carefully selected volumes and pamphlets. By the gift of Mrs. Gray it

has recently received Dr. Gray's large collection of autograph letters of noted botanists. These manuscripts number more than 1100, and many are accompanied by portrait engravings. In the rooms of the Herbarium and its library are many other portraits of illustrious botanists, including the bronze relief of Dr. Gray by Augustus St. Gaudens.

One of the *Laboratories of Vegetable Physiology* occupies the brick building extending eastward from the Herbarium. The building also contains a lecture room with a seating capacity of 100. This laboratory has recently been supplemented by a larger laboratory for research on the plateau in the rear.

THE ASTRONOMICAL OBSERVATORY

The Astronomical Observatory, situated between Concord Avenue and Garden Street, Bond Street and Madison Street, Cambridge, opposite the Botanic Garden, was established in 1843. The annual income, used exclusively for research, is about \$50,000, and is mainly derived from a permanent endowment of \$909,000. Twenty-one men and nineteen women are employed. The investigations so far completed fill nearly 60 quarto volumes of annals. Discoveries made here are promptly announced by means of circulars which are issued, on an average, once a month. This Observatory, and that at Kiel, Germany, have been selected by international agreement as centres for the prompt distribution of astronomical discoveries. Discoveries are telegraphed to one of these centres, cabled from there to the other centre, and at once transmitted to the principal observatories and newspapers of



THE ASTRONOMICAL OBSERVATORY

Europe and America. The library of the Observatory contains about 12,000 astronomical and meteorological volumes, and about 25,000 pamphlets.

The principal objects of interest in the main building of the Observatory are the 15-inch equatorial telescope and attached photometers, the 8-inch meridian circle, the astronomical and meteorological libraries, and the clock vaults. On the grounds are the buildings containing the 11-inch Draper telescope, with apparatus for removing and replacing the large objective prisms, the apparatus for photographing variable stars and eclipses of Jupiter's satellites, and the pole star recorder for measuring the cloudiness at night; the 15-inch Draper reflector for determining the exact position of the pole, and constants of precession, aberration, and nutation; the 8-inch Draper doublet; the 12-inch horizontal telescope with photometer for measuring stars as faint as the thirteenth magnitude; the transit photometer for photographing, every clear night, all stars brighter than the sixth magnitude between the north pole and declination -30° , crossing the meridian after dark. The laboratory contains various electrical and mechanical devices, a commutator for controlling various telescopes, time signals for occultations, apparatus for enlargements, for standard lights, and for converting prismatic into normal spectra.

A fireproof brick building contains more than 190,000 photographs, part of which were taken in Cambridge, and part at the southern station of the Observatory in Peru. Charts and spectra of all the stars from the north to the south pole are represented on these photographs. As each region is taken on many different nights, a history of the entire sky during the last sixteen years is thus pro-

vided. One of the rooms contains a collection of illuminated photographs which illustrates the various methods of work in use at the Observatory.

The great reflecting telescope, aperture 60 inches, constructed by the late A. A. Common, is mounted on the Observatory grounds. It is easily turned by electric motors, the friction being reduced by immersing the polar axis in a tank of water. The observer, in a comfortable room, always looks in the same direction, the stars being reflected into the eyepiece. The instrument will be put into active use as soon as the mounting is completed.

Besides the station at Cambridge, the Observatory maintains an important station near Arequipa, Peru, where the southern stars are studied in the same way that the northern stars are studied in Cambridge. Every important investigation is thus rendered complete from pole to pole. The elevation of the Arequipa Station is 8,060 feet, and the site was selected on account of its exceptionally favorable atmospheric conditions. For several years a series of meteorological stations beginning at the Pacific and crossing the Andes to the valley of the Amazon was maintained for the purpose of collecting material for a determination of climatic conditions.

In 1885, a meteorological observatory was established on Blue Hill, 12 miles south of Cambridge, by Abbott Lawrence Rotch, and is maintained there at his expense. To avoid duplication of work, a plan of coöperation provides for the ultimate union of the two institutions, and the observations made on Blue Hill are published in the *Annals of the Harvard Observatory*. Later, Blue Hill was taken by the Metropolitan Park Commissioners for a public park, but the land on which the Observatory is



THE STILLMAN INFIRMARY

vided. One of the rooms contains a collection of illuminated photographs which illustrates the various methods of work in use at the Observatory.

The great reflecting telescope, aperture 60 inches, constructed by the late A. A. Common, is mounted on the Observatory grounds. It is easily turned by electric motors, the friction being reduced by immersing the polar axis in a tank of water. The observer, in a comfortable room, always looks in the same direction, the stars being reflected into the eyepiece. The instrument will be put into active use as soon as the mounting is completed.

Besides the station at Cambridge, the Observatory maintains an important station near Arequipa, Peru, where the southern stars are studied in the same way that the northern stars are studied in Cambridge. Every important investigation is thus rendered complete from pole to pole. The elevation of the Arequipa Station is 8,060 feet, and the site was selected on account of its exceptionally favorable atmospheric conditions. For several years a series of meteorological stations beginning at the Pacific and crossing the Andes to the valley of the Amazon was maintained for the purpose of collecting material for a determination of climatic conditions.

In 1885, a meteorological observatory was established on Blue Hill, 12 miles south of Cambridge, by Abbott Lawrence Rotch, and is maintained there at his expense. To avoid duplication of work, a plan of coöperation provides for the ultimate union of the two institutions, and the observations made on Blue Hill are published in the *Annals of the Harvard Observatory*. Later, Blue Hill was taken by the Metropolitan Park Commissioners for a public park, but the land on which the Observatory is



THE STILLMAN INFIRMARY

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built has been leased for 99 years to the President and Fellows of Harvard College. This will enable the work of the Observatory to continue under invariable conditions of exposure. The first detailed measures of cloud heights and velocities made in this country were obtained at Blue Hill in 1890. For the exploration of the upper air, kites of various designs have been employed since 1894. In this way, self-recording instruments have been carried to a height of three miles.

The Stillman Infirmary, a hospital for Harvard students, was provided by Mr. James Stillman of New York City, who gave \$175,000 for this use. The buildings, which are on Mount Auburn Street, near the Cambridge Hospital, are of stone and brick construction, fireproof throughout. The architects were Shepley, Rutan, and Coolidge. Great care has been given to the system of heating the wards and rooms.

On the first floor of the main building are the office, operating and sterilizing rooms, three private rooms for patients, the matron's suite, and the nurses' dining room. The second and third floors each contain three private rooms and a ward. The fourth floor is given over to nurses and servants. The basement contains the heating plant, kitchen, servants' dining room, janitor's room, etc.

The auxiliary building contains isolation rooms and wards for contagious cases. It is separated from the main building by an open corridor, underneath which is a well equipped laundry. At one end of the corridor is a sun-room and smoking-room for convalescents. Both buildings have bath-rooms on every floor.

THE MEDICAL SCHOOL

In the year 1782, John Warren, a brother of Joseph Warren who fell at Bunker Hill, drew up a scheme for a medical school in connection with the University. The Corporation approved it, and in 1783 lectures were given in Cambridge, in Holden Chapel, by Professor Warren, Professor Aaron Dexter, and Professor Benjamin Waterhouse. In 1810, the lectures were transferred to Boston; in 1816, a small building on Mason Street, erected by means of a grant from the General Court, was completed, and was called the Massachusetts Medical College. In 1846, that building was sold and the one now occupied by the Dental School, on North Grove Street, was erected for the Medical Faculty. In 1883, the School was again moved into a new and larger building on Boylston Street (corner of Exeter Street), and it was thought that provision had been made for at least another generation.

In 1900, however, so greatly had the demands upon the School increased, both in respect to facilities for instruction and in respect to means for original research, that new plans for equipping the Medical School on a much more ample scale were discussed. These plans involved the construction of five great buildings, the acquisition of a tract of land sufficient for these buildings and for hospitals to be conducted in close connection with the School, and the provision of an adequate endowment, the whole sum required being about five million dollars. By the spring of 1902 the necessary subscriptions to complete this sum had been obtained. Mr. J. Pierpont Morgan gave over a million dollars for



THE HARVARD MEDICAL SCHOOL BUILDINGS

the erection of three of the five buildings, as a memorial of his father, once a Boston merchant; Mr. John D. Rockefeller gave a million dollars, which forms part of the permanent endowment; Mrs. Collis P. Huntington of New York and Mr. David Sears of Boston each gave a memorial building for laboratory uses. Of the other gifts several were devoted to specific purposes, such as the foundation of professorships or the strengthening of professorships already established; others were directed to the general support of the undertaking. In the fall of 1903 work on the buildings was begun, and in September, 1906, they were dedicated.

The New Medical School is situated in Boston, on a lot containing a little over twenty-six acres, bounded by Francis Street, Huntington Avenue, and Longwood Avenue, and extending beyond Vila Street in a westerly direction.

The five buildings front on three sides of a quadrangle 215 by 514 feet, the Administration Building being in the centre of the south end, and the four laboratory buildings on the east and west sides. The corridor, which connects them all, passes through the first story of the laboratory buildings and through the basement of the Administration Building.

The style of the buildings, an adaptation from the Greek, permits great simplicity, and relies for its effect on the relation of the masses rather than upon any elaboration of detail. The doorways of the laboratories are similar to those discovered in Assos by the American expedition.

The distance between the buildings and between the wings of the same building was determined by actual

experiments on the site, and permits the sun, in winter, to reach the basement windows. Throughout special attention has been given to light. The windows in the teaching laboratories go to the ceiling and are high enough to allow the use of microscopes at the rear desks.

The lay-out of the buildings is based largely on what is known as the unit system, but differs from other unit systems in adopting a smaller unit. Instead of taking the section teaching-room, say of twenty-four feet square, as a unit, the new Medical School takes a unit of ten feet of wall-space, which is the width of a window and of the half pier space on each side.

One window unit of ten feet makes a room for individual research; two window units, a room for a professor's personal use; three window units, the standard teaching laboratory (30 by 23 feet), accommodating 24 students, with the apparatus and tables necessary for their work. In many departments this seems to be the most economical number for one instructor to have under him.

Since the only permanent walls are the outside walls and those along the corridors, the cross walls, which form the sides of these unit rooms, may be shifted at any time and new rooms formed of ten, twenty, thirty, or any multiple of ten, feet in length as may be required.

All the buildings, except the Administration Building, consist of two laboratory wings joined together by a lecture room, above which is the library of the building. These lecture rooms can be used by the men in one laboratory wing without disturbing those in the other, since the doors by which they are entered are on opposite sides. The lecturer's desk is on the basement level, and

adjoining are two preparation rooms, one on each side; the students enter from the main floor.

The large central building of the group is the *Administration Building*, which contains, on the first floor, the Faculty Room, and adjoining it the offices of the Dean and the Secretary, the telephone exchange, a janitor's room, a large reading room for students, with a smoking room, and a room for the alumni.

On the second floor is an amphitheatre for lectures on surgery, a large lecture room, and two smaller lecture rooms.

The *Warren Anatomical Museum* occupies the whole of the three upper floors and is lighted by skylights, and by glass floors between the cases, as well as by windows in every alcove. It is connected with the unpacking room in the basement by a large elevator. There are also rooms for the Curator of the Museum on the third floor.

In the basement are the rooms for X-ray photography and for instruction in bandaging. There are also locker rooms and lavatories for the students.

Next the Administration Building on the east is the *Anatomy and Histology Building*. It contains also the Departments of Operative Surgery and Comparative Anatomy. The Anatomical Department occupies the south wing, and Histology and Comparative Anatomy the north wing.

On the opposite side of the Court and next the Administration Building on the west is the building devoted to *Physiology and Physiological Chemistry*, physiology being in the south wing. Besides the section teaching-rooms there are rooms for research work, an operating room for

animals, and sets of rooms for animals under observation, which have been arranged with especial care. There are also animal houses on the roof, well ventilated and having yards for exercise in the open air. The laboratories for physiological chemistry are fitted with all the most approved conveniences. There are also rooms devoted to special research work by individuals.

The library in this building differs from the others in that the books are arranged in floor cases instead of in wall cases.

These three buildings about the south end of the quadrangle were provided by Mr. J. Pierpont Morgan's gift.

Next to the Anatomy Building on the east side of the Court is the *C. P. Huntington Building for Pathology and Bacteriology*. This differs from the others in that the teaching laboratories take up one wing, and the professors', instructors', and research rooms occupy the whole of the other or south wing.

The teaching laboratories, of which there are four, are twenty feet high. This height allows two ten-foot stories on the research side corresponding to each teaching laboratory, so that the building in the teaching wing is, including the entrance floor, three stories high, and on the research side, five stories high.

The teaching laboratories each have a capacity of forty-eight students. Besides the research rooms in the south wing there are rooms devoted to gross photography, also to photomicrography and ultra violet photomicrography; four rooms are also devoted to surgical pathology.

In the rear of the building is a separate structure for the housing of animals.

On the opposite or west side of the quadrangle is the *David Sears Building*, devoted to Hygiene, Pharmacology, Therapeutics, Comparative Pathology, and Surgical Research. Pharmacology and therapeutics occupy the south wing, with space on the third floor for surgical research. The north wing has on the front the Department of Hygiene, which, besides its teaching laboratories, has a museum for exhibiting foods and appliances relating to public health.

The Department of Comparative Pathology occupies the rear half of this wing on all floors. It has on the two lower floors laboratories for students and professors, a room for autopsies, and small rooms to be used in connection with the laboratories. The upper floors are devoted to research and original work. On the top floor are animal rooms with an operating room adjoining.

All the amphitheatres have two preparation rooms, one on either side, and automatic screens for shutting out the light, worked by a button at the desk. Special platforms for the lanterns are so arranged that there will be no distortion in the image thrown upon the wall.

The general scheme of the heating, ventilating, lighting, refrigerating, and power plants is as follows : —

The central walls on either side of the corridors in all the buildings are hollow and contain all the heating and ventilating flues. The system used is indirect hot water. The hot fresh air is forced by fans from a plenum in the basement into the upper part of the rooms, and exhaust fans pull out the foul air from the lower level. In the chemical laboratories the foul air goes out through the hoods as well as through the exhaust ducts. Sufficient direct radiation, however, is installed to keep the build-

ings moderately heated during the night and on Sundays when the fans are not running. Below the corridor, which gives communication between all the buildings, there is a tunnel connecting with the power house on Vila Street. In this tunnel, which is large enough for men to work in freely, are carried the hot water pipes for the heating, hot water for the hot water service in all the buildings, gas and steam pipes, electric conduits, brine for the refrigeration, and all other necessary pipes. In the power house are installed all the necessary appliances for heating, lighting, refrigerating, and power. It is also intended to supply the different hospitals from this same station.

It is proposed eventually to close the end of the main quadrangle on Longwood Avenue with an iron fence and gates of a monumental character, one at the entrance of the terraces on either side and a large iron gate in the centre of the quadrangle. This fence and gates, it is hoped, will be contributed by the classes of the Medical School on their graduation. A boulevard one hundred feet wide, on the north and south axis of the quadrangle, and a plaza at the point where this intersects Longwood Avenue, when constructed, will give a dignified approach to the buildings and will connect them with the Fenway.

THE DENTAL SCHOOL

The Harvard Dental School was established by vote of the President and Fellows of Harvard College, July 17, 1867. In 1865, Dr. Nathan Cooley Keep had, in his annual address before the Massachusetts Dental Society, of which he was then President, suggested the need of a

Dental School in connection with Harvard University; and thus began the movement which resulted in the establishment of the School. The first session opened on the first Wednesday in November, 1867, and continued until the following March. The first examination of candidates for degrees was held March 6, 1869.

The School building, formerly used by the Medical School, is situated on North Grove Street, Boston. It is three stories in height. The first floor contains the chemical laboratory, provided with 140 desks, the janitor's rooms, and the store room. The second floor is used for the mechanical laboratory, the waiting room, the anaesthesia and surgical rooms, lecture rooms, and the office. The large lecture room has a seating capacity of 300. On the third floor are two operating infirmaries, B and C, an office, and a surgical room. Each of the infirmaries has 27 operating chairs; the surgical room is provided with a surgical chair, cases, and instruments. The fourth floor contains a surgical clinic room.

The museum of the School is situated on the third floor and contains, in properly arranged cabinets, specimens of comparative anatomy, materia medica, pathology, mechanical pieces, dental and surgical instruments, plaster models of orthodontia cases, carving, etc. Included in the specimens of comparative anatomy are 24 Hawaiian skulls, more than 1500 years old, found in the caves of the Hawaiian Islands, which show many of the modern diseases known to dentistry. The total number of specimens in the museum is over 3,500. A library of 700 volumes is open to students and graduates of the School.

THE BUSSEY INSTITUTION

The School of Agriculture and Horticulture, known as the Bussey Institution, was established in execution of trusts created by the will of Benjamin Bussey, bearing date July 30, 1835, and was opened in 1871-72. It is situated at the outer edge of Jamaica Plain, close to the Forest Hills stations of the Electric Railway and of the Boston and Providence division of the New York, New Haven, and Hartford Railroad.

The large stone building of the Institution contains lecture rooms, recitation rooms, and laboratories for instruction in agriculture and horticulture, and in chemistry, natural history, physics, and mathematics and surveying, as applied to those arts. It contains, also, a library of some 4500 volumes relating chiefly to agriculture and horticulture. The greenhouses afford opportunity for teaching the manual operations of horticulture and for the study of a great variety of living plants. The nurseries and park-like plantations of the Arnold Arboretum are adjacent to the buildings of the School and serve to supplement its teaching.

Connected with the School is a farm, on which forage is grown and animals are kept.

The students of the Bussey Institution include persons intending to become farmers, gardeners, florists, landscape gardeners, managers or stewards of large estates or of parks, towns, highways, or public institutions, overseers of farms, and owners of rural property.



THE SCHOOL BUILDING OF THE BUSSEY INSTITUTION



THE MUSEUM OF THE ARNOLD ARBORETUM



THE ARNOLD ARBORETUM

The Arnold Arboretum, a living museum of trees and shrubs, is managed by a director who is also Professor of Arboriculture. It occupies 220 acres of land in Jamaica Plain, near the Forest Hills station of the New York, New Haven, and Hartford Railroad, with two entrances from the Parkway of Boston, which forms its eastern boundary, and others from Centre Street, Walter Street, Fairview Street, and South Street, Jamaica Plain. It was established in 1872 by an arrangement between the President and Fellows and the trustees under the will of James Arnold, of New Bedford, the President and Fellows furnishing about 120 acres of land which formed part of the so-called Bussey Farm, bequeathed to them by the late Benjamin Bussey, and Mr. Arnold's trustees an endowment of \$100,000, which has since been increased by accumulated income and other gifts to \$350,000. By another arrangement, made subsequently with the City of Boston, the Arboretum is open to the public every day in the year from sunrise to sunset, and the city, through its Park Commissioners, has built roads and walks in the Arboretum and supplies the police force necessary for its protection. Additional land was also acquired by the city and added to the Arboretum, which in 1894 was further enlarged by the President and Fellows with 75 acres of ground belonging to the Bussey Farm.

The Arboretum is now traversed by between three and four miles of park roads, along which all the trees hardy in the climate of eastern Massachusetts are arranged in great open groups of genera, American species being

followed first by European and then by Asiatic species. These tree groups are bordered by shrubs, so far as possible of the same related genera, and in a special collection, occupying several acres near the entrance from the Forest Hills station, all the shrubs hardy in this climate are arranged in parallel beds, according to their botanical relationships. The Arboretum also contains large areas of woodland, — in the management of which the object sought is the production of the greatest natural beauty, — and many fine native trees. From its two high hills views of the distant country and of the City of Boston and its harbor can be obtained.

The Arboretum is equipped with a herbarium of ligneous plants preserved in a fireproof building; this contains very full sets of specimens of all North American trees and is rich in the types of the woody vegetation of the whole northern hemisphere; the dendrological library of 15,000 volumes and several thousand pamphlets is believed to be unrivalled in its completeness. In connection with the Herbarium and Library there is a very complete set of wood specimens representing the trees of North America, presented to the University with the cases in which they are arranged by Mr. Morris K. Jesup of New York. Special students in dendrology are received at the Arboretum, and every spring and autumn popular lectures are given, largely to teachers; but it is principally managed as a station for scientific research into the character, the distribution, and the uses of hardy trees and shrubs, and of the best methods for their cultivation.

A BRIEF ACCOUNT OF STUDENT LIFE AT HARVARD

In the preceding pages the grounds and buildings devoted to the educational aims of the University have been described. It remains to say somewhat of the places associated with the daily life of the University population, particularly of the students.

So rapid has been the recent growth of the student body that the University no longer attempts to feed and house the whole number of those whom it instructs. Memorial and Randall halls, conducted by student associations, supply with food about half of those who live in Cambridge. The others patronize public cafés and restaurants and private boarding-houses, or avail themselves of the accommodations which many of the clubs afford. Now and then one also finds a poor student preparing his food over a spirit lamp in his room. At the private boarding houses, as in Memorial Hall, club tables are commonly formed.

DORMITORIES

The University rarely fails to let all the rooms in those dormitories in Cambridge which it owns, and which have been described; but an increasingly large percentage of the students, either from necessity or from preference, live elsewhere. Many find quarters in private houses, and some, whose homes are in Cambridge and the neighboring towns and cities, live at home; a few live in fraternity houses, and a large number are housed in private dormitories. Some of these private dormitories offer

accommodations not substantially better or worse than what the University gives in its dormitories ; but in recent years luxurious quarters for the richer students have been provided by the enterprise of capitalists. These expensive buildings are nearly all to the southward of the College Yard, on Mount Auburn Street or in its neighborhood. The newest of them have such appliances for the pleasure and comfort of their lodgers as are found in expensive bachelor apartments in New York and other cities ; swimming tanks and apparatus for gymnastics are offered by some of them. The poorer students find rooms at rentals of seventy-five dollars, fifty dollars, or even less ; the richer pay on an average five hundred dollars. The rooms in the dormitories and in most of the private houses are let unfurnished, and a student may fit up his quarters economically or luxuriously, according to his means. Ordinarily, a student rooming alone has a study and a small bedroom or alcove, and two students rooming together have a study in common and two bedrooms or alcoves.

No doubt, the chief reason why the newer private dormitories have arisen between the Yard and the Charles River is that this region has come to be the centre of those activities in which the social spirit, the college loyalty, and the literary, musical, and other interests of the student body express themselves. Here are the principal club houses, most of them within easy reach of the dormitories. Along Massachusetts Avenue, facing the Yard, and in Harvard Square, southwest of the Yard, are the shops, restaurants, billiard rooms, etc., most frequented by the students. Across the river are the principal playgrounds, and on its banks are the boat houses.

ATHLETICS

Of all the student activities, none attracts more attention from the general public than athletics, and those branches of athletics in which Harvard teams engage in intercollegiate contests have been for years the subject of much discussion. The various sports are sustained by elaborate organizations among the students, and regulated by a committee composed of officers, graduates, and undergraduates. The old Delta was for many years the principal playground; when it was chosen to be the site of Memorial Hall, Jarvis Field was secured in its stead. Jarvis and Holmes fields accommodated all the teams except the crews until 1895, when Soldier's Field, south of the Charles, became available.

SOLDIER'S FIELD

This spacious playground, covering twenty acres, was given to the College in 1890 by Henry Lee Higginson, of the Class of 1855. A shaft near the main entrance is inscribed as follows:—

TO THE
HAPPY MEMORY OF
JAMES SAVAGE
CHARLES RUSSELL LOWELL
EDWARD BARRY DALTON
STEPHEN GEORGE PERKINS
JAMES JACKSON LOWELL
ROBERT GOULD SHAW
FRIENDS COMRADES KINSMEN
WHO DIED FOR THEIR COUNTRY
THIS FIELD IS DEDICATED BY
HENRY LEE HIGGINSON

THOUGH LOVE REPINE AND REASON CHAFE
THERE CAME A VOICE WITHOUT REPLY
'T IS MAN'S PERDITION TO BE SAFE
WHEN FOR THE TRUTH HE OUGHT TO DIE

In 1893-94, a locker building was erected on Soldier's Field by subscriptions from the Alumni, the Carey building on Holmes Field being no longer available for the teams, on account of the distance. Opposite the locker building stands a base-ball cage, built in 1897. It is called the Carey building, for the reason that in the same year the Corporation took the Carey building on Holmes Field for a laboratory, and in return contributed \$15,000 to the improvement of the new playground. On Soldier's Field are the base-ball diamond, the foot-ball field, — around which is a quarter-mile cinder track, — and fields for lacrosse and other sports. The Shooting Club practises here also, and has a small house of its own.

At the northeast corner of the field is the Newell Gate and within it a keeper's lodge. On the gate is the following inscription : —

THIS GATE WAS ERECTED
IN MEMORY OF
MARSHALL NEWELL
BORN 1871 DIED 1897



AN ATHLETE
STURDY ALERT AND BRAVE
A LOVER OF BEAUTY AND
TRUTH A SIMPLE UNSELFISH
WHOLESOME FAITHFUL MAN

“ SOME PEOPLE ARE LIKE SPRINGS
ALWAYS BUBBLING OVER
WITH FRESHNESS AND LIFE ”

THE STADIUM

The Stadium is a structure of concrete, of horseshoe shape (except that the sides are straight and parallel), with seats in concentric rows, thirty-one in number, rising one above another to a height of forty-six feet. The outside walls are composed of two stories of massive arches, above which a third story or colonnade is sometime to be added to complete the design and provide a covering for the promenade which runs the whole length of the wall outside the highest row of seats. The outside dimensions of the Stadium are 573 feet by 420 feet. The field which it encloses measures 478 feet by 230 feet. On this field are laid out the running track and the "gridiron," and here the principal track contests and foot-ball games are held.

Since 1905 the afternoon Class Day exercises have been held in the semicircular end of the Stadium, replacing the old Tree exercises and the later Statue exercises in the delta of Memorial Hall. In the summer of 1906 the "Agamemnon" of Aeschylus was given here in the original Greek with marked success.

The seating capacity of the Stadium proper is about 23,000. By the addition of temporary wooden stands on the top promenade and in front of the lower parapet, the number of seats can be raised to 35,000. An additional stand built across the open end brings the total number of spectators who can be accommodated up to nearly 45,000.

The erection of the Stadium was first made possible by a gift of \$100,000 from the Class of 1879, in the spring of 1903. The wooden bleachers or iron stands previously in use had long been unsatisfactory both on account of the dangers from fire and from the natural

processes of decay, and on account of the large expense annually incurred for repairs. The Athletic Committee, therefore, willingly added to the Class of 1879's gift the surplus of \$75,000 which had gradually accumulated in its hands, and the necessary balance was easily borrowed, to be repaid from gate receipts in later years. A careful study of the problem under the guidance of Professor Hollis showed that a structure of stone or brick would be quite beyond the means available, and that concrete, reinforced by twisted steel rods, was the most suitable substance for the purpose. The general plan, from the architectural side, was worked out by Mr. George B. de Gersdorff, under the direction of Mr. C. F. McKim, but the working drawings were made and the construction supervised by Professor L. J. Johnson, with Mr. J. R. Worcester as consulting engineer.

The method of building consisted of putting up wooden molds, into which the concrete was poured. Every column and beam and all the walls had twisted steel rods imbedded in them, as a means of preventing cracks due to shrinkage. The removal of the wooden molds has in all cases left a perfect imprint of the wood, and further treatment of the outside is necessary to remove all evidence of the joints and cracks as well as the grain of the wood. The seats were cast separately and were put in place upon steel girders, just as stone would be laid. They are really artificial stone, with steel netting imbedded in them to prevent cracks.*

The total cost of the Stadium in its present unfinished condition was about \$250,000.

* See an account of the building of the Stadium in the *Harvard Graduates' Magazine*, March, 1904, vol. xii, p. 341.

ROWING

Doubtless the oldest of the athletic sports now flourishing at Cambridge is rowing. As early as 1844, the Class of 1846 bought an eight-oared boat and named it the Oneida. Several clubs were formed, each taking the name of its boat. The clubs raced with each other and with outside clubs. In 1852, the long series of Yale-Harvard races began on a two-mile course on Lake Quinsigamond, the Oneida of Harvard winning by four lengths from the Shawmut of Yale. A second race was won from Yale in 1855, and the building of a boat house the next year was one of the signs of the growing popularity of the sport. In 1859 and 1860, Harvard beat Yale and Brown on Lake Quinsigamond; the shell used by the Harvard crews in those two races is in the Harvard Union. During the Civil War, rowing languished until 1864, when the races with Yale were resumed. In 1870, Harvard had a record against her chief rival of seven victories out of nine contests; in 1869, a four-oar Harvard crew rowed a very creditable race on the Thames against Oxford, the Englishmen winning by six seconds.

From 1871 to 1876, Harvard rowed in college regattas, first at Springfield and then at Saratoga. But in 1876 a dual league with Yale was formed, and this arrangement lasted until 1895. From 1879 until 1895, all the races were rowed at New London. Owing to a rupture of athletic relations with Yale, Harvard rowed in 1896 at Poughkeepsie, and was beaten by Cornell. In 1897 and 1898, Cornell beat both Yale and Harvard. The dual league with Yale has been revived within recent years. Yale at present leads Harvard in the number of vic-

tories. In addition to the annual race with Yale at New London, since 1905 races have been rowed with Cornell either at Cambridge or at Poughkeepsie, and in 1907 Harvard rowed Columbia on the Charles River. In 1906 the victorious crew against Yale rowed against Oxford on the Thames. It was defeated, but rowed a very creditable race, and derived much beneficial rowing experience.

The crew or "eight" is housed in the 'Varsity boat house. A captain is elected at the end of each season by the men who have rowed in the principal race, — usually the race with Yale. The captain, after consultation with graduates interested in rowing, selects a coach, who is ordinarily a Harvard graduate; but the crews of 1897 and 1898 were coached by Mr. R. C. Lehmann, a graduate of Cambridge, England, and a famous amateur expert in rowing. For the last four years the University crew has had the instruction of a professional coach.

Besides the University, there are a number of other crews at Harvard. In 1879, class crews were formed, and the class races, rowed every spring on the Charles, have served to develop oarsmen for the "Varsity."

The Weld Boat House. — In 1890, Mr. George Walker Weld, of the Class of 1860, who, in spite of being himself an invalid and incapable of any active exercise, retained a keen interest in athletics, built and equipped a boat house for the especial benefit of students not rowing on the University or class crews. The Weld Boat Club had possession of this building, situated on the east bank of the Charles River, at Boylston Street, Cambridge, until the new Weld Boat House was built in 1907.



VARSITY BOAT HOUSE

SECRET

The new Weld Boat House, situated on the site of the former Weld Boat House, was built in 1907 with money from the estate of George W. Weld, who, dying in 1905, desired that his property be devoted to undergraduate sports, especially rowing.

The architects of the new building were Peabody and Stearns.

The University Boat House, on the other side of the river and a little further upstream, was a gift from the Harvard Club of New York City. Built in 1899, at a cost of \$27,500, it was destroyed by fire in December of the same year. The loss was covered by insurance, but more money was given by the New York Harvard Club, and work was soon begun on the present building, which cost \$42,000, and was formally turned over to the University on November 16, 1901.

It is used by the University crews and by the Newell Boat Club, which was organized in 1898-99 and was named in honor of Marshall Newell, of the Class of 1894, famous in his day as a foot-ball player and oarsman. Until 1901 the Newell Club had quarters in the old boat house.

The present system of selecting the University crew is as follows : —

Class crews are formed at both the Weld and Newell clubs early in the season, and race for the class championship just before the spring recess. From these crews the most promising men are selected by the captain and coaches for further training and trials. The victorious class crews take part in various dual races and regattas.

In 1905-06 the system of graded crews was abolished and a new system of dormitory crews was inaugurated.

This at once proved popular, as it enabled a much greater number than formerly to take part in rowing. Each of the larger dormitories has a crew, and the smaller dormitories join in groups of two or three in forming crews. These dormitory races take the form of "bumping" races. Under this system the various crews take their places along the river in single file, at equal intervals. The crew which laps the one ahead is said to "bump" the other crew, and in the next race the crews which "bump" and which are "bumped" exchange positions. This system has proved very popular and arouses much enthusiasm. After a series of races, cups are awarded to the best crew.

FOOT-BALL

Foot-ball, as played nowadays, is a comparative newcomer among college sports; but foot-ball of a different sort was played at Harvard long before the Civil War. A rough-and-tumble match between the Freshmen and the Sophomores used to be played every year on the Delta. The Faculty put an end to the custom, but it is supposed that the "rushes" on "Bloody Monday" night — the evening of the first Monday after term begins in the autumn — were a survival of the old encounters on the Delta.

In 1873, a foot-ball association was formed, and rules limiting the number of players to fifteen on a side were adopted. The number was gradually reduced to eleven. In 1880, the Rugby rules were adopted. In 1885, the Faculty prohibited the game on account of its roughness, but the next year the ban was removed.

The first regular game of foot-ball between Harvard and Yale was played in the fall of 1875 and was won by

Harvard. From that time, up to and including the contest in 1894, there were sixteen games, of which Yale won fourteen and Harvard one. The game in 1879 resulted in a draw. There were no contests in the years 1877, 1885, and 1888. A display of brutality in the foot-ball game in 1894 caused a cessation of all athletic relations with Yale, and it was not until 1897 that another foot-ball match was played. Since then, Harvard has won from Yale twice, in 1898 and 1901; tied twice, in 1897 and 1899; and been defeated six times. Both tie games were remarkable in that neither side scored. Harvard now plays every year with Yale and with many smaller colleges. With Princeton there have only been two matches since 1889.

Jarvis was the foot-ball field until 1895, when the sport was transferred to Soldier's Field. The annual match with Yale, played formerly at Springfield, is now played alternately at Cambridge and at New Haven. It attracts enormous crowds and is usually a most exciting spectacle.

BASE-BALL

Base-ball has flourished at Harvard ever since 1862, when the base-ball club of the Class of 1866 was formed. It practised first on the Common, near the Washington Elm, and later on the Delta. Yale had no club at that time, but in June, 1863, a game was played with the Brown Sophomores at Providence, and the Harvard nine won. The first game with Yale was played in 1868. Jarvis Field became the playground when Memorial Hall was built, and afterwards Holmes Field. In 1897, base-ball was transferred to Soldier's Field.

In 1896, athletic relations with Yale were resumed after a break of over a year. Of the twelve series of base-ball games played since that date, Harvard has won nine, with a total of nineteen games out of thirty-one. There was a tie game played in Cambridge in 1905. The game with Yale the day before Class Day at Cambridge is one of the great athletic events of every year. Harvard plays also with various other colleges.

TRACK ATHLETICS

The track and field teams represent the University in the annual Mott Haven games, a meeting of various colleges, and in the dual games with Yale. Harvard has a Mott Haven cup, the trophy of eight victories, and in 1899 the first cup offered for the dual contests with Yale became Harvard's property as the result of five victories over her dearest foe.

Since 1891 there have been sixteen dual meets with Yale. Of these Harvard has won nine, with a total of $862\frac{1}{2}$ points to Yale's $833\frac{1}{2}$ points. In the contest for the present trophy — a silver cup — each University has won four victories.

OTHER SPORTS

Lawn tennis is played chiefly on Jarvis Field, which was given over to the Lawn Tennis Association when the foot-ball team ceased to play there. Several tennis courts have been built lately on Soldier's Field. There is a golf team, a lacrosse team, a fencing team, a shooting team, an Association foot-ball team, a basket-ball team, a hockey team, and a swimming team.

The student organizations devoted to other than athletic purposes are many and various. To most of them the term club may be applied; but some have not taken that form.

Perhaps the greatest practical importance should be attributed to the editorial boards of the student publications.

HARVARD JOURNALISM

The undergraduate publications are six in number. *The Harvard Crimson* appears daily, excepting Sundays. *The Lampoon*, the college illustrated comic paper, and *The Advocate*, the oldest of the six, whence its sobriquet, "Mother Advocate," are published fortnightly. *The Monthly*, as its name implies, and *The Harvard Illustrated Magazine* are published once a month. *The Harvard Engineering Journal* is issued four times during the year. To these may properly be added *The Harvard Law Review*, conducted by students in the Law School.

The Harvard Lampoon, founded in 1876, had among its first editors Robert Grant, F. J. Stimson, J. T. Wheelwright, and F. G. Attwood. In 1880, it ceased to appear, and some of the men who had founded it went to New York to write for *Life*, which was started at that time. In 1881, *The Lampoon* began to come out again as its "Second Series," so that it is now able to boast that it is the oldest comic paper in the country and the parent of *Life*. The editors, about twenty in number, have a Sanctum in the house next the Hasty Pudding Club on Holyoke Street. The comical aspects of college life are set forth in this paper, and a mildly satirical attitude is maintained towards the governing powers.

The Harvard Crimson, the college daily, is a larger and more business-like concern than any of the other college papers. The board of editors, and the candidates, who serve a severe four months' apprenticeship, are expected to do a really considerable amount of work during the college year. The *Crimson* offices in the Harvard Union are large and give working accommodations to the graduate weekly, *The Bulletin*, and to the Harvard correspondents of various newspapers. The "Sanctum," in the back of the office, is more or less sacred to the editors, and is used chiefly as a clubroom.

The Harvard Advocate is more closely associated with the undergraduate publications of the past than any other Harvard periodical now issued. It is the immediate successor of the short-lived *Collegian*, which appeared in 1866 with the motto "Dulce est periculum." The second of the three numbers of *The Collegian* contained a Socratic dialogue, in which Socrates asked what the compulsory chapel services really were, considering that the minister was the only person present who was intent on his devotions. After the Faculty had suppressed the paper and threatened expulsion to any who should allow themselves such freedom again, the *Advocate* appeared under the motto "Veritas nihil veretur." In time, it ventured to print the old motto "Dulce est periculum" also.

The Monthly is much like *The Advocate*. Both publish stories and poems, but *The Monthly* is given also to rather serious studies in literature. For example, it published the first English translation of one of Ibsen's later plays and the first bibliography of George Meredith. Furthermore, it proposes to keep in touch with college affairs, and prints every month a "leader," written by some

prominent upperclassman or graduate, concerning affairs of current interest.

The Advocate and *The Monthly* occupy adjacent offices and "sanctuums" on the top floor of the Union.

The Harvard Illustrated Magazine was founded in 1899. Its aim is to treat the varied University interests in timely, graphic, and authoritative articles, thus supplying a continuous historical and illustrated record of peculiar interest and value to both students and graduates. The *Magazine* is, however, by no means limited to University affairs, and does not, therefore, restrict its field exclusively to the work of students and alumni.

The Harvard Engineering Journal first appeared in April, 1902. It is the journal of the *Harvard Engineering Society*, is edited under the guidance of professors in the Engineering Department of the University, and is devoted to engineering and architectural interests.

The Harvard Law Review was started in 1887, and is conducted by students in the Law School. Its leading articles are by members of the Law Faculty and by eminent lawyers. Its notes on current cases cover recent decisions in all parts of the world, and include all cases which disclose the general progress and tendencies of the law.

Of the Harvard men who in their college days served on the editorial boards of student publications many became eminent in later life, and a few have been famous. Edward Everett and Samuel Gilman (the author of "Fair Harvard") were on the board of *The Harvard Lyceum*, which appeared in 1810 and 1811. Later, in 1830, Oliver Wendell Holmes contributed to the first *Collegian*. James Russell Lowell was an editor of *Harvardiana*,

1835-1838. Phillips Brooks, F. B. Sanborn, and J. B. Greenough were among the originators of *The Harvard Magazine*. Roger Wolcott, '70, and Theodore Roosevelt, '80, were on *The Advocate*.

THE CLUBS

There are more than a hundred student organizations, other than athletic, to each of which the term "club" may be applied. Social intercourse is a feature of most of them, but in many this is subsidiary to other objects.

PRACTICAL CLUBS

There are clubs devoted to such practical work as the management of the dining halls (the Harvard Dining Association and the Randall Hall Association), to the conduct of a store (the Coöperative Society), or to the superintendence of philanthropic undertakings (the Phillips Brooks House Association). These have been already described.

RELIGIOUS SOCIETIES

The religious societies have been many. Those now flourishing are the Harvard University Christian Association (Protestant), which traces its origin to the Saturday Evening Society, founded in 1802; the St. Paul's Catholic Club, formed in 1892; the Harvard Mission, founded in 1904, and the St. Paul's Society (Protestant Episcopal). Phillips Brooks House is available for the meetings of all these societies.

POLITICAL CLUBS

The interest of the student body in the affairs of the Republic, and in particular political movements, is frequently exhibited. In fact, none of the higher forces of University life are stronger than the simple impulse of patriotism. The presidential elections always bring into action clubs representing the two great parties; frequently, the smaller parties, and factions of the greater, are also represented. Organizations like the Harvard Political Club aim at continuous agitation along certain lines.

SECTIONAL CLUBS

Sectional clubs, like the Southern, the Maine, the California, and the Western New York, bring together the men whose feeling for their home associations is strong, especially those whose homes are remote from Cambridge. Of these, the Southern Club, which has a club house of its own at 77 Mt. Auburn Street, is perhaps the best organized. Similarly, the larger preparatory schools are represented by such associations as the Exeter Club, the Andover Club, etc.

EDUCATIONAL CLUBS

There are associations of students — graduates, undergraduates, and professional-schools-men — based on serious interest in nearly every important branch of study. The Graduate Club brings together a large number of men pursuing advanced studies and doing original work in various departments, among them many representatives of other American and Canadian colleges. The law clubs are organized like courts; their members prepare

briefs, argue cases, and render decisions, all in the most business-like way. Among the undergraduates, the clubs interested in modern languages are particularly strong. The Cercle Français and the Deutscher Verein both give dramatic performances, and in recent years the Cercle has been enabled, through the generosity of Mr. James Hazen Hyde, '98, to offer the University community courses of lectures on French literature by such eminent French men of letters as M. Brunetière and M. Rod. The Circolo Italiano, the Sociedad Española, and the Esperanto Society cultivate their respective fields. For the students of science there are the Natural History Society, — an old organization, — the Boylston Chemical Club, the Electrical Club, and several others.

The debating clubs should also be placed in this category, and they have an especial interest for the public because of the intercollegiate debates in which they engage. Debating was a feature of many of the older societies which in the course of time have become purely social. A "Harvard Union," devoted entirely to speaking, flourished in the thirties. It was revived in 1880, and in 1891-92 it started a series of annual debates with Yale. At present there are three debating clubs, — the Agora, the Forum, and the Freshman Debating Club; and in addition the University Debating Council, which is composed of the presidents of the three clubs and men who have been University debaters. It has charge of all the debating interests of the College. Intercollegiate debates have been held annually with Yale since 1893, and with Princeton since 1895. Of seventeen debates with Yale, Harvard has won thirteen; of twelve with Princeton, eight have been decided in favor of Harvard.

Rooms on the upper floor of Dane Hall have been granted by the College to the use of the debating clubs.

MUSICAL CLUBS

There are several organizations based on a love of music. One of them, the Pierian Sodality, founded in 1806, is probably the oldest musical society in the country. It is said that in 1832 its membership was reduced to one man, who "elected himself to all the offices, attended his own rehearsals, and so carried the club through the year." The Glee Club dates from 1858; the Banjo and Mandolin clubs are of later origin. These three frequently give concerts together, and they have a pleasant custom of making music in the Yard on warm evenings towards the close of term time. They used to make extensive tours through the country during the Christmas holidays, but such expeditions are now prohibited. During recent years, it has been the custom for all three to unite with the musical clubs of Yale in a joint concert the evening before the annual Yale-Harvard foot-ball game. Each of the three has its counterpart in the Freshman class. The Harvard Musical Club has rooms in Wadsworth House, where frequent meetings are held. An annual concert is given each winter, at which original compositions are produced.

MISCELLANEOUS CLUBS

A set of interests, not athletic or social or literary, finds expression in such organizations as the Camera Club, the Chess Club, and the Whist Club. The Camera Club has an annual exhibition, at which prizes are awarded. The Chess Club has a fine record in the intercollegiate con-

tests, and the Whist Club has beaten Yale almost every year since 1894, when the club was formed.

The Harvard Union. — The Harvard Union is the most inclusive of all Harvard clubs. Its membership is open to all past and present members of Harvard University, whether their connection is that of students or officers. It thus becomes a common meeting ground and place of convenient resort for all Harvard men, since it accommodates under one roof a great many of the interests which bring Harvard men together, and also provides the conveniences of a large and well-appointed club house. It is also the accepted place for University mass meetings, and for the large gatherings of graduates and undergraduates occasioned by important athletic contests.

The name "Harvard Union" was first given to a debating society founded in March, 1880, which, it was hoped, would form the nucleus of a university club, like the Unions at Oxford and Cambridge. As a debating society it accomplished some useful results, but on the social side it failed to expand. Meanwhile, with Harvard's rapid growth, the need of a social centre became more apparent, and, in the autumn of 1895, new interest in the project having been stimulated by an article in the *Harvard Graduates' Magazine* by William Roscoe Thayer, '81, the first president of the Harvard Union of 1880, a meeting was called to discuss it. A permanent committee, of which Mr. Charles Francis Adams was chairman and Mr. W. R. Thayer was secretary, was appointed, and through circulars, correspondence, and personal addresses, it brought the question before Harvard alumni in all parts of the country. It was thought that \$200,000 would be



THE HARVARD UNION

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needed, and the financial outlook at the time being unpropitious, the committee postponed action. In the following two years the undergraduates had the chance to take up the subject and grow zealous over it, while the alumni also became convinced that the institution was needed.

After the Spanish War of 1898, a committee of graduates and undergraduates was organized to raise a memorial to the Harvard volunteers who had died in that war. Through the suggestion of Professor I. N. Hollis, it was decided to combine this memorial with a building for social purposes, and then, in the autumn of 1899, Major Henry L. Higginson, '55, offered to give \$150,000 for a building. The old debating society had split up, and the new club took the name originally intended — Harvard Union. The Corporation assigned part of the Warren estate, at the corner of Quincy and Harvard Streets, as a site; J. H. Hyde, '98, gave \$20,000 to fit up a library; Augustus Hemenway, '75, and F. L. Higginson, '63, gave each \$10,000 towards furnishing; and various other graduates and friends contributed smaller sums or special decorations. The architects were Messrs. McKim, Mead, and White, of New York.

The building, the plans and construction of which were supervised by Professor Hollis, was formally dedicated October 15, 1901. It consists of a basement and three floors, and covers an area of quarter of an acre. In the basement are the kitchens, store rooms, engine room, toilet and bath rooms, billiard room, barber shop, and a suite of rooms used for offices and composing room by the *Harvard Crimson*. On the main floor, opening directly from the entrance hall, is the great Living Room (nearly

100 feet long by 40 feet wide). Its walls of panelled oak are hung with portraits, and there are two large open hearths for wood fires at opposite ends of the room. Daily newspapers from the principal cities of the United States are kept on file. Small tables are available for after-dinner coffee or light refreshments. Occasionally smokers, open to members, are held here, at which entertainment is furnished by the University musical clubs, or by readings, addresses, etc. On the left are the dining rooms — a large one for general use, a small one for the University athletic teams. Adjoining the Living Room on the right are periodical, game, and writing rooms. In the second story is a well chosen library of over six thousand volumes, contained in three connecting rooms which give direct access to the shelves and afford an agreeable privacy to readers. The Library Committee enjoys the interested coöperation of the University Library and of several officers of the University. On the same floor is the Trophy Room, which contains an interesting series of athletic trophies won by University teams, a committee room, an assembly room, and a ladies' dining room, to which there is a separate entrance. The upper story provides quarters for the *Advocate* and the *Monthly*, and bedrooms for a few transient guests. The Athletic Manager has an office under the pavilion.

The Union is managed by a board of officers chosen annually by the active members in all departments of the University. A board of seven trustees, appointed in the first instance by the Corporation, holds the title to the property, and has general oversight of its vital interests. The expense of running the Union is about \$30,000 a year, which includes about \$2000 for ground

rent. Annual membership costs \$10 for active, \$5 for associate, and \$3 for non-resident members; life membership for graduates is \$50, and for students, \$75. The present membership of the Union is about 4000. Of this number over 2000 are active student members and about 1150 are life members.

LITERARY AND SOCIAL CLUBS

We come finally to a long list of clubs which, as a group, cannot be accurately described as either social or literary; nor can they be accurately divided into literary and social. Nearly all of them began by being literary. The majority have ended by going over entirely to good fellowship, but even these frequently give their conviviality a traditional literary or dramatic form. Perhaps the best way to describe them as a group is to say that they are all social clubs, some of which retain literary features.

In one, however, the Phi Beta Kappa, the social side is presented chiefly to the alumni members who gather at Cambridge the day after Commencement for the annual oration and poem, which are given in Sanders Theatre, and for the dinner, which was eaten in Massachusetts Hall until 1902, since when it has been served in the Union. To the undergraduate, membership is desirable chiefly as a formal mark of academic distinction.

The Phi Beta Kappa, the first of the so-called "Greek letter" societies, originated at the College of William and Mary in Virginia in 1776. The Harvard Chapter was established by charter in 1781 and remained a secret society down to 1831. Its catalogue shows a long roll of eminent names, and many of the Phi Beta Kappa

addresses and poems have become famous; examples are Emerson's address in 1837, Wendell Phillips's in 1881, and Oliver Wendell Holmes's poem in 1836. The speeches at the dinner are never reported. The immediate members are taken from the two higher classes, from each class thirty-five being chosen.

Other clubs which, though really social, maintain an intellectual tone, are the O. K., which dates from 1858; the Signet, which was founded in 1870, and in 1902 moved into its present quarters, the former A. D. Club House, on Mount Auburn and Dunster Streets, and the Amphadon, a comparative newcomer. These three choose their members from the upper classes, and are not rivals; membership in one of them does not debar a student from election to the others. The Delta Upsilon was organized in 1881, and is the strongest chapter the fraternity has. Its club house is at 12 Holyoke Place. Every spring, it produces a play, usually selected from the works of the Elizabethan dramatists.

There is also at Harvard a chapter of Theta Delta Chi, with a club house on Dunster and Winthrop Streets. The Kappa Gamma Chi Club was formerly the Harvard chapter of the fraternity by that name, but has now become local. Its club house is at 16 Prescott Street. There is also a Harvard chapter of Sigma Alpha Epsilon, and there are several clubs composed of men who have belonged to the same fraternities at other colleges previous to entering Harvard. But as a rule the Greek-letter societies at Harvard have no connection with other chapters throughout the country.

For example, the Delta Kappa Epsilon at Harvard, better known as the Dickey, is the Sophomore secret

society from whose membership the more exclusive of the Junior and Senior societies are recruited; and the Dickey is really the inner circle of a larger Sophomore society called the Institute of 1770. The Institute is the oldest of all the clubs now in existence, for its history extends back under different names to the year 1770, when the Speaking Club was founded. The object of this society was to provide an opportunity for practice in public speaking and declamation. In 1801, the Speaking Club became the Patriotic Association, and later the Social Fraternity of 1770. In 1825, it united with two other clubs under the present name, and in 1848 the I. O. H. was also absorbed. Once a Senior society of literary proclivities holding its meetings in Massachusetts Hall, the Institute has gradually changed into a Sophomore society, has eliminated its literary features, and now maintains a club house of its own on Holyoke and Winthrop Streets. Its hundred members are chosen in groups of ten, and the first eight tens are members of the Dickey also. The custom is to "take out" each ten by marching around to the tune of the "Institute March" and hauling the men out of their rooms. The Dickey is held responsible for most of the comical initiations witnessed on the streets of Cambridge and Boston, on the playgrounds between the halves of important athletic contests, and in various other places where the performances of the novitiate are sure of adequate appreciation. The Dickey has also given a number of dramatic exhibitions, usually comic operas.

Of all the larger social clubs, however, the Hasty Pudding is doubtless the best known. Indeed, it is probably the best known college club in the country. It was founded in 1795, and takes its name from the frugal fare

on which its members still occasionally regale themselves. Its meetings were held for many years in the rooms of members, but in 1849 it obtained permanent quarters in Stoughton Hall, where at length a whole floor was given over to it. Here was a stage on which the dramatic performances which have brought the club its wide reputation used to be presented.

In 1876, the Pudding moved into the wooden building on Holmes Field now used by the Astronomical Department. Its present club house, on Holyoke Street, was built in 1888. It has a theatre in the rear, and a considerable library. The plays are given first in the club house and afterwards in Boston. Nowadays, they usually take the comic opera form, the words and music being the work of members. Several of the Pudding "shows" have recommended themselves to professionals. Besides the plays, there are various peculiar usages and customs which give a quality of distinction to the good fellowship which is the club's main object and attraction. Its catalogues almost vie with those of the Phi Beta Kappa in the matter of distinguished names. Its immediate members are all Seniors and Juniors.

The Pi Eta Society was founded in 1865 by members of the Class of '66 who felt that the increasing size of the College warranted the formation of a second large Senior society. Its first quarters were on Brighton (now Boylston) Street. In 1873, it obtained rooms in Hollis, where it first began to give dramatic entertainments. Three years later, a fire caused a third removal, this time to Brattle Square. In 1894, the Society took possession of its present club house on Winthrop Square; in 1897, a theatre was added. Formerly, the Pi Eta drew its mem-

bers from the Everett Athenæum, a society no longer in existence, much as the Pudding draws its members chiefly from the Institute of 1770. At present, however, the Pi Eta takes in men from the three upper classes. Its plays are produced in Cambridge and Boston, and are usually the work of members.

There remain a number of small social clubs, most of them with Greek-letter names, but without affiliation with chapters in other colleges. The oldest of these small clubs, and doubtless the best known, is the Porcellian, whose club house is on Massachusetts Avenue, nearly opposite Boylston Hall. It was founded in 1791 as the Pig Club, became the Gentlemen's Society the next year, and in 1794 took its present name. Its first rooms were in Stoughton; the club house was built in 1891. As a rule, the members are wealthy students of social prominence. The club has a fine library.

The A. D., whose club house is at the corner of Plympton Street and Massachusetts Avenue, and the Alpha Delta Phi, whose club house is at the corner of Mount Auburn Street and Holyoke Place, both trace their origin to a society founded in 1836 and called the Alpha Delta Phi. At one time, owing to Faculty opposition to secret societies, it had to conceal its existence. It then took the name A. D. At present, however, the two clubs are entirely separate. The Zeta Psi, which has held a place in the college social system not unlike that of the Alpha Delta Phi, dates from 1847. Its club house is at 15 Holyoke Street. Other small clubs which possess houses of their own are the Delta Phi, the Sphinx, the Calumet, the Phi Delta Psi, and the Digamma. The number of these small and exclusive clubs, which take

their members chiefly from the rolls of the Institute and the Pudding, seems to be increasing. Formerly, they attached much importance to secrecy; but the building of club houses seems to have worked a change in this respect.

A general characteristic of all these social organizations at Harvard is the self-sufficing way in which, as a rule, they avoid mere noise and publicity. In this respect, they have a strong resemblance to the better sort of clubs in cities. The number of students seems to necessitate numerous clubs, and the tendency is to organize them on those lines of congeniality and common interests which determine social groupings in the great world. In the shaping of characters, and ultimately of careers, the social intercourse among students at Harvard plays a part scarcely less important than the instruction offered by the University. It breaks up the student body into various groups, which maintain a certain cohesion and consistency in after life.

COMMENCEMENT AND CLASS DAY

Of the student body as a whole, it may be said that it represents all but a very few elements of American citizenship, with a considerable foreign admixture. One never sees the whole of it at once; but at the great athletic exhibitions, and on a few occasions of special academic interest, one may get a fair idea of what the whole would be like.

The greatest occasions are Class Day and Commencement. Both have frequently been described in books, and in the main the descriptions hold good from year to



"THE TREE"

year. Commencements have been held from the beginning, with a single break of seven years, from 1775 to 1781, occasioned by the Revolutionary War. The chief features of the day are the ceremonies in Sanders Theatre, where a few "parts" are spoken by candidates for degrees, and where the degrees, now more than a thousand in number each year, are conferred, the great gathering of Alumni in the Yard and of particular (graduate) classes in various rooms in the older buildings, the procession in order of classes to Memorial, and the speeches there.

The beginnings of Class Day are unknown. It is celebrated on Friday of the week before Commencement. The Seniors, in caps and gowns, go to prayers together in Appleton Chapel, and later gather with their friends in Sanders, where the Class Orator speaks, and the Class Poet and Odist read their verses. "Spreads" are given in many places. In the afternoon, until 1898, there was always "The Tree," the most peculiar of Harvard customs, whose origin, like that of Class Day, is unexplained. The tree itself stands in the quadrangle partly enclosed by Harvard, Hollis, and Holden, and it stood there more than a hundred years ago, as an old engraving shows. On countless Class Day afternoons its trunk has been circled by a band of flowers, for which crowds of Seniors, attired in utterly disreputable raiment, have striven to the applause of fair spectators. But for various reasons "The Tree" was abandoned in 1898, and for several years an entirely new set of ceremonies was performed around the statue of John Harvard at the west end of Memorial Hall. Since 1904, however, the Stadium has been used for the afternoon exercises, and

forms an ample and picturesque gathering-place for the great company that streams down from the Yard and across the bridge. On the curving rows of stone seats are the ladies in a bewildering variety of summer costumes. On the grassy semicircle below are disposed the graduates and undergraduates who have marched in by order of classes. The Seniors come last, and are greeted by rounds of cheers. The Ivy Orator displays his wit, and so excellent are the acoustic properties of the place that he can be heard by almost the whole company. The Seniors, gathered in the centre, sing their class song, cheer the athletic teams, the President and Dean, the several classes, and the Ladies, and finally, as the line marches about the enclosure, a storm of paper confetti breaks out, and long colored streamers float out into the air. As the latter fall upon the company, they are eagerly caught up, and in tangled masses are bandied back and forth in a gay and lively battle.

The long line returns to the Yard and its vicinity. "Teas" are waiting in Society buildings, in private rooms, and in the more retired portions of the Yard.

In the evening there is dancing in various halls; the Yard is bedecked with Japanese lanterns and thronged with promenaders; and in the midst of all is the Glee Club's stand, whence at last the strains of "Fair Harvard" announce to the class whose name is gleaming on the front of University that its college days are numbered.

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